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ABSTRACT

This report is the result of the first year evaluation of 16 open plan schools built by SEF, four NonSEF open plan schools, and four traditional plan schools in an effort to compare SEF schools with nonSEF schools and open plan facilities with traditional plan facilities. The study was intended to gather information about the adequacy of these various facilities from the standpoint of the users. Questionnaires were given to all teachers and principals, to randomly selected 5th and 6th grade students in heterogeneous classes, and to randomly selected parents and neighbors. In addition, observations of all students and teachers were made in 12 schools over a period of one week. There were differences both in satisfaction with and utilization of facilities, some favoring SEF schools and some favoring nonSEF open plan schools. However, the differences from school to school were generally much greater than the average differences between types. The large, overriding differences were generally found between the open and the traditional plan schools. (Author)

# SEF - ACADEMIC EVALUATION

## An Interim Report

April, 1972

ACKNOWLEDGEMENTS

We are grateful for the help of many people. Local and OISE researchers helped us clarify our concepts and refine our instruments; hundreds of children, teachers, and citizens took time to complete our questions; school principals accepted the inconvenience of having the study take place in their schools. The members of the SEF Advisory Committee and the Advisory Council of Directors gave their advice and approval. The Metropolitan Toronto School Board gave formal approval to the study on October 13, 1970. Dr. Jim White and his staff from David Jackson and Associates who collected the data and handled the computation were most reliable and thorough. Dr. J.T. Durlak of the Social Science Division at York University provided essential assistance and objectivity throughout the study.

We thank all these people very much.

SEF Staff

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# INTRODUCTION

All inquiry is conducted within the shadow of error. Every inquirer continuously risks making false claims and failing to make claims which could be made. The more he tries to avoid making false claims, the more likely he is to let thrughful claims go undiscovered or unstated. The more he tries to make every possible true claim, the more he risks making claims which are not true or which have no practical significance. Where the results of the inquiry can have serious consequences for the inquirer, another set of tensions is introduced. The inquirer is naturally inclined to seek out and report favorable results and to ignore or minimize unfavourable findings. This inclination to screen out disturbing information is shared by all people. The readers of this report will tend to filter out "bad" information and to accept readily information which supports their beliefs and preconceptions. Persons who read this report seeking evidence of the success or failure of the SEF experiment will likely find it; so too, will people looking for faults in our design, methods, and interpretation.

We have remained conscious of these problems throughout investigation. Independent consultants were retained at crucial stages--design, data collection, data analysis and interpretation--to help control the inherent biases of self-evaluation. We believed that our interest would best be served by conducting the most comprehensive and rigorous study possible. To the best of our knowledge, it is the first of its kind of this scale.

The study was commissioned to compare SEF schools with non-SEF schools and open plan facilities with traditional plan facilities. The study was intended to gather information about the adequacy of these various facilities from the standpoint of the users. The first 10 SEF schools were occupied in September of 1970. The evaluation was conducted in April of 1971. While the first year of a school's operation is somewhat unique, it was felt necessary to begin the evaluation early both to obtain a benchmark and to provide user feedback for a possible second

building system. The study was focused on the use of space and the satisfaction of users with their school environment. Nevertheless, the overwhelming influence of staff and program on utilization patterns was acknowledged. It was assumed from the beginning that variability from school to school within a particular type of facility would often be greater than any average differences between types of schools.

We hope that the study contributes to the improved design and use of school facilities.

## CONCLUSIONS AND RECOMMENDATIONS

A product may be evaluated in many ways. One of these ways is to measure the reactions of the users. That these reactions have been recorded does not mean that the evaluation is complete. The final evaluation cannot be made until many years from now when a different sent of users with different standards will pass judgment on how well "these old buildings" have stood up over the years and met the demands placed upon them. While findings are set forth here as conclusions, it is well to remember that evaluation is in fact multi-faceted and that it takes place over a long time span.

The largest differences found in this study were between new (open plan) schools and older (traditional plan) schools. The environments provided by older schools were not as satisfactory to the users as were those of newer schools.

From the standpoint of the users, all things considered, the new open plan non-SEF schools (NSO) were just as satisfactory as SEF schools. While differences were noted favoring SEF or NSO on specific items or characteristics, the size of these differences from school to school within each type (SEF and NSO) was generally much larger than the average difference between the types.

### Conclusions

Many specific comparisons and general findings are set forth in the Summary at the end of the report. Only conclusions specific to SEF schools appear here.

1. SEF schools provide very satisfactory educational environments. User reaction is positive toward environmental characteristics such as lighting and acoustics; physical characteristics such as the inside appearance, floor area, and layout; and toward specialized areas such as the library resource centres, gyms, music rooms, playgrounds as well as individual general teaching areas. User

reaction is also quite positive toward many specific amenities of the teaching areas such as floor covering, telephones, and environmental adequacy.

2. Many of the flexible features of SEF schools such as adjustable shelving, tables and the doors on containers, portable sinks, and the electric-electronic service columns are being used by many students and teachers. Partition layouts in a number of schools had already been rearranged by the end of the first school year.

3. The large library resource centres are being heavily used.

4. Teachers in SEF schools are more likely to have asked to teach in their schools. They also feel they have more influence in bringing about program changes but desire still more influence than they already have.

5. Many SEF teachers are not satisfied with the windows or the exterior appearance of their schools. However, neither of these items was claimed to be of great importance by a majority of SEF teachers.

6. The programs being conducted in SEF schools involve considerably more activity of all kinds than those in non-SEF schools. There is less structuring of spaces; teachers are more personal and informal with students; students work more often in small groups or alone, use a greater variety of tools, and move more frequently about the school.

Recommendations

It is recommended that:

1. The matters of sufficiency of floor area, noise control, and atmospheric control be given prime consideration in the planning of new open plan schools.

2. This revised interim report be distributed to the Area Boards particularly for the use of personnel who are involved in the planning and provision of school facilities.

3. The development of training materials (films, slides, brochures) about open plan methods of teaching be investigated, including possible collaboration with OISE and OECA.

4. A second year evaluation be planned which will involve only SEF schools and which will include an investigation of the relationship between activity levels and student performances.

5. The relationship between the extent of AV inventories and levels of AV use be investigated as part of the EMITS study.

6. Secondary analyses of the survey data be undertaken by the Social Science Division of York University at no cost to the Metropolitan Toronto School Board.

7. An abstract of this interim report be distributed through the SEForum newsletter.

# PART I

## METHODOLOGY AND DESCRIPTION OF SCHOOLS AND RESPONDENTS

## CHAPTER 1

## METHODOLOGY

The total environment of schools is an extremely complex phenomenon. Moreover, to our knowledge, at this time no comprehensive studies have been conducted, nor are developed theories or tested methodologies are available to guide an investigation such as this one. Therefore, it was decided to proceed on the broadest possible front with the simplest possible instruments. Furthermore, analysis techniques were restricted to those that have the greatest "face validity" or that "ring truest" in terms of everyday human experience.

The general framework of the study developed gradually. A course of research was developed--partly planned, partly random searching. It emerged in the course of carrying out: review of the literature; preliminary discussions with educational personnel and students; selection of school type for testing; identification of pertinent variables; selection of actual school sample; development of instrumentation; pretest; observation training; data collection; and data analysis. The research has thus far been carried out over an 18 month period from March 1970 to September 1971.

During the spring and summer of 1970, the review of existing literature and preliminary discussions with teachers, students, educators and other professionals took place. It was decided to confine the study to elementary (K-6) schools. Comparisons were possible between open plan and traditional plan schools as well as between SEF and other open plan schools.

In addition to the eight SEF schools, four open plan schools and four traditional plan schools were chosen. The eight non-SEF schools were matched as closely as possible with the SEF schools on the basis of geographical proximity, size of student body, and the general demographic status of the neighborhood. The results

of these attempts at matching are reported under the description of schools.

Five sets of interrelated factors were identified for intensive study: users, program, facility, activity patterns, and modifications to the facility.

1. The major users of school buildings are students, teachers, and principals. Other important users include parents and neighbors. Information was sought about the general activities of users, their utilization practices as well as their level of satisfaction with the facility.

2. The program which has been developed for a school affects how the facility is used. Only a few aspects of program such as the use of audio-visual equipment, the amount of individual tutoring, the amount of time teachers spent planning were measured. However, a broad outline of program variability is included in the description of schools.

3. The facility was examined from several viewpoints. First, the convenience, pleasantness and general workability of the building as a whole was considered. Second, specific characteristics were investigated such as lighting, acoustics, and windows. Teachers were asked to rate the actual school in relation to an ideal school and to compare it with other schools with which they were familiar.

4. The activity patterns of the users were measured by such things as the proportion of time students spent in large or small groups, using various materials, and occupying particular areas. The bulk of this data was gained by direct observation.

5. School environments can be modified by altering the heights of working surfaces, rearranging bookshelves or dividers, or by using new furniture arrangements. The frequency with which these modifications occurred were noted.

As the study progressed, the more basic assumptions became evident. It was assumed that there would not be any direct effect of facilities on academic achievement. The review of the literature provided little reason to believe that children in SEF schools would learn to read or cipher better or more quickly than those in other schools. Within the range of physical facilities provided in Metropolitan Toronto, the direct influence of facilities on school achievement must surely be slight. It was also assumed that it was better for school users

to be satisfied with their facilities than to be dissatisfied and that more intensive use of facilities was preferable to less intensive. (Intensive use occured when a variety of activities took place simultaneously within a space.) Another major assumption was that both satisfaction levels and utilization patterns were strongly influenced by the users beliefs about himself and his social environment. For example, children who were never bored in school were probably more satisfied with the facilities; teachers who saw themselves as innovative probably made more intensive use of the facilities.

## Sample Size

The size of each sample for each type of instrument is presented in the following tables.

Table 1 Sample Sizes In School Questionnaires

| Type of School | No. of Schools | No. of Teachers & Principals | No. of Students |
|---|---|---|---|
| SEF | 8 | 206 | 510 |
| NSO[1] | 4 | 60 | 263 |
| NST[2] | 4 | 101 | 305 |
| Total | 16 | 367 | 1078 |

Table 2 Sample Size for Neighborhood Interviews

| Type of School | No. of Schools | No. of Parents | No. of Neighbors |
|---|---|---|---|
| SEF | 4 | 146 | 141 |
| NSO | 2 | 78 | 69 |
| NST | 2 | 72 | 71 |
| Total | 8 | 296 | 281 (577) |

Table 3 Sample Size for Direct Observations

| Type of School | No. of Schools | Spaces Observed |
|---|---|---|
| SEF | 4 | 2,517 |
| NSO | 4 | 1,860 |
| NST | 4 | 2,196 |
| Total | 12 | 6,573 |

[1]Non-SEF open plan schools are cited hereafter as NSO.
[2]Non-SEF traditional plan schools are cited as NST hereafter.

## Instrumentation

Three questionnaires were prepared: one for students; one for teachers and principals; and one for neighbors and parents. Simultaneously, a form was developed for recording direct observations of activity in schools. As a result of discussions with principals, teachers, and students and preliminary observations, the questionnaires were shortened, ambiguities removed, unimportant questions deleted, and several relevant questions suggested by respondents added. In addition, trial and error experimentation with several observational approaches led to the final observation form.

Specifications for the study were set out and a commercial research firm was retained to collect the data and conduct preliminary analyses.

## Pretest

Pretest data was collected in February 1971 in two SEF, two open plan, and two traditional plan schools. On the basis of the pretest results and further visits and discussions, the final version of each instrument was established. These instruments constitute Appendix I of this report.

## Observer Training

The interviewers and observers were either experienced teachers and/or interviewers. The same observers were used in the pretest and the formal test and were trained in several day-long sessions prior to and after the pretest. The observers were instructed to be unobtrusive but friendly towards the teachers and students and to avoid involvement in school activities. The observers were very well received in the schools and managed their assignments extremely well.

## Data Collection

The data was collected between mid-April 1971 and mid-May 1971. In the 16 test schools, questionnaires were administered to all teachers and principals (93 per cent completion rate) and a random sample of 1,079 fifth and sixth grade children. In eight test schools (four SEF, two non-SEF, and two non-SEF traditional schools), questionnaires were administered to a random sample of parents chosen from school lists and a random sample of neighbors who did not have children

attending the particular school.

The observation was carried out in 12 schools--four SEF schools, four non-SEF open plan schools, and four non-SEF traditional plan schools. Each of the seven observers observed in several types of schools, thus controlling interviewer bias. Generally two observers made three trips to 20 spaces in each school each day for a week. Each visit followed a different route so that a picture of the total activity of the whole school was obtained. The observers recorded the number of people in the spaces, the kinds of groupings, the activities, the amount of movement, and the number of kinds of tools being used. More extensive observation took place in teaching areas, commons, kindergartens, and the library than in special facilities such as the music room or gym. Six thousand, five hundred and seventy-three spaces were observed.

## Analyses

The coding of the major portion of the questionnaires was done by mark sense tabulation. The coding of the observational data and the open ended questionnaire questions was done by hand. Frequency counts were first obtained. This allowed the data to be "cleaned" of mechanical errors. It also permitted categories to be combined and indices to be developed for the analyses. Chi-square technique was used to discern significant differences, and the Contingency Coefficient served as the measure of association. Differences which were likely to occur by chance alone more than five per cent of the time were rejected.

CHAPTER 2

# DESCRIPTION OF SCHOOLS

As mentioned in the preceding sections, the sample consisted of three distinct types of K-6 elementary schools: SEF schools, non-SEF open plan schools (NSO), and non-SEF traditional plan schools (NST) without any open additions or suites. However, these distinctions were not that simple; two of the schools, one SEF and one NSO, had a grade 7-8 program in the school, and four of the schools--one NSO and three NST--had portables.

## Physical Description

### 1. Age

All eight SEF schools opened in September 1970. Three of the eight were built as replacements for obsolete buildings. Of the NSO schools, one was built in 1916 on a traditional plan but was completely remodelled to an open plan in 1970. The other three NSO buildings were new. One opened in April 1969 and two in September 1970, the same time as the SEF schools. Two of the NST schools were built prior to the first World War. The other two were built in the 1950's. All four NST schools have had renovations, and two of them have had additions.

### 2. Layout

The SEF schools were two or three storey buildings which had open spaces of varying degrees. Sometimes one storey had special enclosed areas and traditional corridors with the rest of the school left open. Sometimes there was a mixture of open and enclosed space throughout the school.

In some cases, common areas were indistinguishable from the teaching areas, or the teaching areas were three sided cubicles surrounding a common area. Some

schools had the equivalent of eight classrooms in one area with no partitions of any kind. Some schools had some operable partitions. One school had 24 teaching areas plus four commons on one floor. The area was broken up by seminar rooms and workrooms but there was no partitioning between most areas.

NSO schools were one or two storey buildings. One had a useable basement with several enclosed areas. The open areas varied from a two-classroom size to an eight-classroom size. Only one of the schools had designated open common areas, and some lacked seminar areas or teacher workrooms. In some, there were a few enclosed classrooms.

Two NST schools were three storey, and two were two storey. All had a central corridor plan with classrooms on both sides. Two of the older schools had basements, parts of which were being used as teaching space. One school had spacious wings and vestibules. In some schools, all rooms were identical in shape and size; in others there was a variety of shapes and sizes.

3. Atmospheric Control

There was a complete air conditioning system for SEF schools, but some boards did not specify humidity controls. Of the NSO schools, one had complete atmospheric control, one had partial air conditioning and the other two had good ventilation but no air conditioning. None of the NST schools had air conditioning. One had poor ventilation.

4. Windows

SEF windows were long, narrow slits which allowed even the youngest child to see out. Windows were sealed and double glazed. In NSO schools, windows varied from school to school and sometimes from room to room. Some schools had windows about the same width as the SEF windows which reached halfway to the floor; others had a wall of windows or conventional windows. NST schools had conventional windows.

5. Lighting

The SEF lighting system was recessed in a 5' x 5' ceiling grid. A two-level control allowed "one half on" as well as "fully on." NSO schools all had fluorescent lighting. In some cases,it was recessed into the ceiling, in others suspended from or attached directly to the ceiling. The lighting in NST schools included all the types found in NSO schools plus some traditional pendant lighting.

6. Flooring

In SEF schools, static-free polypropylene carpeting with a heavy pile was laid in all open areas prior to any partitioning. The carpeting was soil and stain resistant. NSO schools had carpeting in most of the teaching areas, although occasionally enclosed classrooms were tiled. NST flooring was wood or tile. In the gym, SEF schools had Tartan surfacing; most of the non-SEF schools had regular wooden flooring in the gym.

7. Acoustics

SEF acoustics provided sound absorption through carpeting and specially treated partitions and ceiling tile. All NSO schools had acoustic ceiling tile and carpeting. The acoustics in NST schools varied from room to room and school to school.

8. Furnishings

The casework system chosen for the SEF building system provided the major portion of the furnishings in SEF schools. As chairs were excluded from the casework specifications, they varied from school to school. Also in the three replacement schools, some equipment and furniture had been retained from the old school. SEF's shelving, storage components, display surfaces, tables, lockers and sinks were all part of a modular system. Amounts and combinations of casework varied from school to school.

A wide variety of casework was used in all non-SEF schools. There were many attractive individual pieces of furniture. Sometimes there was uniformity in furniture throughout the school but more frequently there was not. The amount of chalkboard and display space varied from area to area and school to school. Tables came in many sizes and shapes. There were many built-in cupboards and shelves and many heavy immobile pieces.

## Demographic Description

1. Socio-Economic Status

There was wide variation from district to district in the overall level of affluence and the homogenity among the residents. In Metro, schools in districts with special problems are classified as "Inner City" schools, regardless of their actual location. There were five such schools in our sample. The remaining schools were allocated into two categories by planning experts. Seven schools

were judged to be clearly higher in socio-economic status than the other four. The proportion of SEF and non-SEF schools which fell into the various categories is shown in Table 4 .

Table 4 Number of Schools of Each Type by Socio-Economic Status

| Type of School | Low | Medium | High |
|---|---|---|---|
| SEF | 2 | 3 | 3 |
| NSO | 1 | 0 | 3 |
| NST | 2 | 1 | 1 |

Table 4 indicates in a general way that NSO were socio-economically higher than SEF, which in turn were higher than NST, although there were schools of each type in both the high and low category.

2. Enrolment

Schools varied in size from a low of 240 students to a high of 1,035. No NSO school exceeded 690 students. A summary of the data concerning enrolment at the time of the study is presented as Table 5.

Table 5 Size of Enrolment Across Types of Schools

| Type of School | Small (240-370) | Medium (440-690) | Large (890-1,035) |
|---|---|---|---|
| SEF | 2 | 4 | 2 |
| NSO | 3 | 1 | 0 |
| NST | 1 | 2 | 1 |

The three largest schools were also in the lowest category of socio-economic status.

3. Level of Occupancy

Each school building was designed to accommodate a specific number of students. This number was termed the "rated capacity" of the school. New schools were normally built to accommodate the enrolment anticipated several years after opening. Thus, because many of the schools in this study were new, they were occupied below their rated capacity. The proportion of each type of school which was below its rated capacity is shown in Table 6.

Table 6 Number of Schools Occupied Below Capacity Across Types of Schools

| Type of School | Below Capacity | At or Above Capacity |
|---|---|---|
| SEF | 6 | 2 |
| NSO | 2 | 2 |
| NST | 1 | 3 |

4. Ethnic Background

Precise information was available concerning the country of birth and mother tongue of the sample of grade 5 and 6 students. This data supported the following summary table.

Table 7 Number of Schools in Non-English Districts Across Types of Schools

| | Ethnic Composition | |
|---|---|---|
| Type of School | Mainly Native Born English Speaking | Mixed |
| SEF | 5 | 3 |
| NSO | 2 | 2 |
| NST | 3 | 1 |

Most schools in the study were located in districts which were predominantly English speaking and inhabited by native born people. However, some schools of each type had a high proportion of people of other ethnic backgrounds.

Program Description

1. Variability in Program

No particular kind of program was representative of each type of school. Within each school type in the study, there was as much variability in program intent and practice as there was among the three types. Moreover, the program was in flux. The philosophy of the local board of education and that of the principal, the age and nature of the facilities, the size of the student body, the level of occupancy and the ethnic and economic characteristics of the students are invariably expressed in each school program.

In the schools, there was a serious attempt to have children working at their own level and rate of learning, but the method of achieving this differed. There

were varieties of ability grouping, family grouping, withdrawal groups, and re-grouping of students. In some schools, teachers with special abilities in math, English, or social studies were rotated. Whereas music, physical education and art were generally taught by regular classroom teachers, most of the French program and guidance was taught by specialists. However, there were exceptions for each subject, depending on the size or the philosophy of the school. Some principals and vice principals did not teach, others taught regular classes on a regular basis; some did remedial work, enrichment work, or small-group instruction; others did only substitute or demonstration teaching. The use of parent volunteers was being tried tentatively in some schools, and in others, was a well established practice.

2. Traditional Plan School Programs (NST Schools)

Most of the four traditional schools were set up on a grade basis, but this had not prohibited an interchange of teachers nor a sharing of overall program philosophy. There were examples of cross-grading, older students helping younger students, integration of special education students with regular students, promotion of children halfway through the year, and many extra spaces or alcoves being used as interest centres or unstructured resource centres.

3. Open Plan School Programs (SEF and NSO Schools)

Some open plan schools were organized traditionally with one teacher for most of the day working with 30 students at one grade level. Some schools had established some teaching team arrangement; in other schools, teaching teams were evolving naturally. Often the teamwork was within a single grade level, but a variety of multi-age, multi-grade level teams were emerging. Sharing of students and spaces was growing and thematic approaches were being tried. However, departure from traditional organizational arrangements was not always easy and according to some people, not even wise.

Although no school type had a monopoly on any program, in the open plan schools, there was more evidence of interaction and joint planning. The open plan seemed to lend itself to a sharing of resources, both human and physical. Nonetheless, it must be underlined that extremely good programs were operating in every type of school building.

## CHAPTER 3

## DESCRIPTION OF RESPONDENTS

The group of school users selected for the purposes of this study included students, teachers and principals, and parents and neighbors. As stated previously, the interest was in how each group used school facilities and what their degree of satisfaction was with the building.

### Student Sample

About half the students in the study were boys; there was no difference in the proportion of each sex across the types of schools. However, there were slight differences in age, first language, and place of birth. Children in the NSO schools were more likely to be younger (36 per cent are 10 years old or younger) than children in the SEF and NST schools (29 per cent and 33 per cent respectively). A total of 77 per cent of the children sampled learned English as their first language. However, this average was lower in the NSO schools (66 per cent) as compared with the SEF and NST schools (about 80 per cent). Eighty-seven per cent of the children in NST schools were born in Canada, as opposed to 81 per cent for both SEF and NSO schools.

Table 8 Distribution of Students by Age Across Types of Schools

| | Age | | | |
|---|---|---|---|---|
| Type of School | 10 yrs or less % | 11 yrs % | 12 yrs or more % | N |
| SEF | 28.9 | 45.3 | 25.8 | 508 |
| NSO | 36.5 | 46.0 | 17.5 | 263 |
| NST | 32.8 | 59.7 | 27.5 | 305 |
| Total | 31.8 | 43.9 | 24.3 | 1076 |

Table 9: Distribution of Students by Mother Tongue Across Types of Schools

| Type of School | Mother Tongue: English % | Not English % | N |
|---|---|---|---|
| SEF | 80.7 | 19.3 | 492 |
| NSO | 66.1 | 33.9 | 254 |
| NST | 80.7 | 19.3 | 296 |
| Total | 77.2 | 22.8 | 1042 |

Table 10: Distribution of Students by Country of Birth Across Types of Schools

| Type of School | Country of Birth: Canada % | Not Canada % | N |
|---|---|---|---|
| SEF | 80.6 | 19.4 | 509 |
| NSO | 80.9 | 19.1 | 262 |
| NST | 87.5 | 12.5 | 304 |
| Total | 82.6 | 17.4 | 1075 |

In addition to these demographic matters, data was obtained on the students' attitudes toward school. They were asked about freedom in school, boredom, and whether or not they liked school.

1. Freedom

Seventy-five per cent of the students surveyed indicated that they got their own way enough in their school. Fifteen per cent thought they got their own way less than they should, while the remaining seven per cent felt they already got their own way more than they should. Children in all types of schools were similar on this measure. However, it was established that the students who believed they did not get their own way enough were more likely to be boys, to be often bored, to dislike school, and to attend school in medium socio-economic districts.

2. Liking School

Students were asked how strongly they liked or disliked school. A neutral answer was allowed. Because so few students disliked school, to allow analysis, the negative answers were combined with those who were neutral. About half of all students claimed to like school "a lot", a quarter liked it "a little", and a quarter were either "neutral or disliked" it to some extent.

A higher proportion of students from SEF schools disliked school than from NSO and NST schools. A somewhat higher proportion of students from NSO schools used the highest category.

Table 10: Distribution of Students by Satisfaction With School Across Types of Schools

| Type of School | Student Satisfaction With School: Like A Lot % | Like A Little % | Neutral or Dislike % | N |
|---|---|---|---|---|
| SEF | 49.9 | 28.0 | 27.1 | 510 |
| NSO | 55.1 | 23.2 | 21.7 | 263 |
| NST | 47.9 | 33.4 | 18.7 | 305 |
| Total | 48.2 | 28.4 | 23.4 | 1078 |

There were very strong relationships between liking school, boredom, and freedom. Students who were often bored and those who felt they did not get their own way enough were much more likely to be neutral or negative towards school. Because liking school and boredom were so strongly related, they were generally related to the same things. However, liking school reflected many demographic effects which boredom did not. For instance, students who liked school were more likely to have been born outside of Canada, to have learned English as a second language, to reside in lower socio-economic districts, and to attend schools which were large or which were occupied at or above rated capacity. Girls were also more likely to like school than boys, but they were also less likely to be bored.

3. Boredom

About a tenth of all students claimed to be often bored in school. Twice this number were never bored. The remainder reported to be bored occasionally. Students in the open types of schools were no more or less likely to be bored than their counterparts in traditional plan schools. Boredom was related to a host of variables. Students who claimed to be often bored were more likely to be boys, to dislike school, to be too warm or too cold, to want more freedom, to dislike the outside and inside of the building as well as the library, the music room, the furniture and the facilities for their clothes and personal belongings than students who were seldom or never bored. These same often bored students were much less likely to visit the

school library.

Teacher and Principals Sample

Across the three types of schools, there were no distinguishing differences in the samples of teachers and principals on factors of sex, age, years in university, number of university degrees and years of experience. Overall, 76 per cent of those sampled were females, 69 per cent under thirty, 58 per cent had one year or less university education, and 28 per cent had university degrees. Sixteen per cent had one year of experience; 43 per cent, two to six years of experience; and 41 per cent, seven or more years.

About 25 per cent of the SEF sample and 15 per cent of the NSO sample had had one to six days of special training for working in open plan schools. However, one-third of the NSO sample had one or more years experience in open plan schools compared with a quarter of the sample in SEF schools. This difference no doubt resulted from the age of the schools. The outstanding difference among the teachers in three types of schools was that 52 per cent of the SEF teachers asked to teach in their present schools whereas 29 per cent had asked in NSO schools, and 21 per cent in NST schools. In addition to the above information, the respondents were asked questions regarding their innovativeness, preference in instructional aids, planning time, program influence on teachers, distribution of influence and the amount of change needed.

1. Innovativeness

Teachers were asked several questions about their own levels of innovativeness. There were no differences among the teachers from different types of schools so only the overall results are presented.

When asked to rate their own teaching style, one-tenth indicated that they were very progressive, while a quarter judged themselves to be traditional. The majority, about 60 per cent, felt themselves to be moderately progressive. The teachers showed a great deal of confidence in their own ability to adapt to change. About 25 per cent of them reported that it was very easy for them to integrate new methods or materials into their regular pattern of teaching, about 40 per cent said it was easy; and another quarter claimed that this was not a matter of great concern.

Only a very small percentage admitted to any difficulty in this matter. Differences did appear between the teachers in open and traditional plan schools in their regard for the fully enclosed classroom. Three-quarters of the teachers in NST schools liked the enclosed classroom and only five per cent disliked it. In the open plan schools, less than half the teachers claimed to like the enclosed classroom while about a third disliked it. Many teachers in open plan schools had abandoned their liking for the enclosed classroom, but a somewhat greater number would still prefer it.

2. Preferences in Instructional Aids

Teachers were asked about the importance to them of both chalkboard and the overhead projector as instructional aids. Sixty per cent reported that chalkboard was important, a fifth that it was unimportant, and the remainder were neutral. There were no differences between schools in the importance of chalkboard to teachers. It is interesting to note that chalkboard was important to three-quarters of those teachers who spent less than two hours a day working with individuals and small groups but to only a third of those who spent the bulk of the day so engaged.

Major differences between teachers in different types of schools in their regard for the overhead projector are evident in Table 10.

Table 10 Teachers regard for Overhead Projectors Across Types of Schools

| Type of School | Importance of Overhead Projector to Teachers | | | |
|---|---|---|---|---|
| | Important % | Neutral % | Unimportant % | N |
| SEF | 35.9 | 39.6 | 24.5 | 192 |
| NSO | 57.4 | 51.5 | 11.1 | 54 |
| NST | 24.2 | 41.4 | 34.3 | 99 |
| Total | 35.9 | 38.8 | 25.2 | 345 |

More than half the teachers in NSO schools felt the overhead projector was important as an instructional aid. This was double the proportion in NST schools and considerably greater than in SEF schools. Only 10 per cent of the teachers in NSO schools regarded the overhead projector as unimportant. These results were consistent with the finding of heavier use of audio visual equipment in the NSO schools.

3. Planning time

It was widely believed that teachers in open space schools spent more time planning and preparing material. In the schools investigated in this study, the opposite was the case. The results were as follows.

Table 13: Average Number of Planning Hours Per Teacher Across Types of Schools

| Type of School | 0 - 5 % | 5 or more % | N |
|---|---|---|---|
| SEF | 46.3 | 53.7 | 205 |
| NSO | 45.6 | 54.4 | 57 |
| NST | 29.7 | 70.3 | 101 |
| Total | 41.6 | 58.4 | 363 |

More than a third of all teachers surveyed (37 per cent) indicated that they spent nine or more hours per week planning; about a tenth spent two hours or less. More teachers from NST schools spent five or more hours planning than did those from open space schools. It was also found that teachers who spent more time planning were generally those who spent a greater part of the day teaching the class as a whole. Further information about planning is presented in Chapter 5 Utilization, p. 45.

4. Program Influence on Teachers

Open space layout makes a teacher's performance visible to other teachers. It is also supposed to make it easier for teachers to collaborate and to form teams. These possibilities were investigated by asking the teachers how much the overall school program influenced what they did with their students. The results appear in Table 14.

Table 14: Amount of Influence of School Program Acknowledged by Teachers Across Types of Schools

| | Amount of Program Influence Acknowledged | | | |
|---|---|---|---|---|
| Type of School | Quite a lot % | Some % | Little % | N |
| SEF | 60.1 | 26.9 | 13.0 | 193 |
| NSO | 46.3 | 37.0 | 16.7 | 54 |
| NST | 32.9 | 39.8 | 27.6 | 98 |
| Total | 50.2 | 32.2 | 17.7 | 245 |

The resultswere quite conclusive. More teachers in open plan schools than in traditional plan admitted that the school program influenced their teaching. The relationship was more pronounced in SEF schools than in NSO. More than a quarter of the teachers in NST schools claimed that the overall school program had little influence on how they taught.

5. Distribution of Influence

The issue of influence was pursued in two series of questions. The first series concerned the amount of influence the principal, the teachers themselves, the students, and the parents actually had in bringing about program changes. The second series asked the teachers' opinions about the amount of influence each of these groups should have. The results are summarized in Tables 15 and 16.

Table 15: Amount of Influence Teachers Believe Various Groups Have In Bringing About Program Change

Actual Distribution of Influence

| Group | A Great Deal % | Quite a Lot % | Some % | Little % | Very Little % | N |
|---|---|---|---|---|---|---|
| Principal | 36.2 | 34.5 | 23.3 | 3.2 | 2.9 | 348 |
| Teachers | 30.7 | 40.5 | 21.8 | 4.3 | 2.6 | 348 |
| Students | 8.1 | 15.9 | 40.1 | 21.0 | 15.0 | 347 |
| Parents | 2.3 | 9.3 | 29.9 | 31.0 | 27.5 | 345 |

Table 16: Amount of Influence Teachers Believe Various Groups Should Have In Bringing About Program Change

Desired Distribution of Influence

| Group | A Great Deal % | Quite a Lot % | Some % | Little % | Very Little % | N |
|---|---|---|---|---|---|---|
| Principal | 17.3 | 35.5 | 41.9 | 3.8 | 1.4 | 346 |
| Teachers | 43.4 | 47.4 | 9.0 | 0.0 | 0.3 | 346 |
| Students | 7.8 | 20.5 | 58.1 | 8.7 | 4.9 | 346 |
| Parents | 1.4 | 8.7 | 51.6 | 26.4 | 11.9 | 345 |

On the whole, teachers saw themselves as having about as much influence as the principal. They saw students as having some influence and parents as having

relatively little. Analyses of these results by type of school showed that teachers in SEF schools regarded themselves as having significantly more influence than was reported by their colleagues in other schools. The relevant data is presented in Table 17.

Teachers did not differ by type of school in the amount of influence they would like each of the parties to have. Most teachers wanted themselves to have the most influence, the principal somewhat less, and the students and parents somewhat less again. To achieve this state of affairs would have required all other parties to give up some of the influence they now have, in favor of the teachers.

Table 17: Amount of Influence Teachers Believe They Have To Bring About Program Change Across Types of Schools

| | Actual Distribution of Influence | | | | | |
|---|---|---|---|---|---|---|
| Type of School | A Great Deal % | Quite a Lot % | Some % | Little % | Very Little % | N |
| SEF | 34.5 | 37.1 | 22.7 | 4.1 | 1.5 | 194 |
| NSO | 25.9 | 42.6 | 14.8 | 5.6 | 11.1 | 54 |
| NST | 26.0 | 46.0 | 24.0 | 4.0 | 0.0 | 100 |
| Total | 30.7 | 40.5 | 21.8 | 4.3 | 2.6 | 348 |

6. Amount of Change Needed

The focus of the questions about influence was on program changes. Accordingly, it was necessary to find out how much change the teachers felt was needed in their schools. The results appear in Table 18.

Table 18: Amount of Change Teachers Believe Is Needed Across Types Of Schools

| | Amount of Change Required | | | |
|---|---|---|---|---|
| Type of School | A Lot % | Some % | Little % | N |
| SEF | 38.9 | 49.5 | 11.6 | 196 |
| NSO | 35.2 | 53.7 | 11.1 | 54 |
| NST | 14.0 | 59.0 | 27.0 | 100 |
| Total | 31.1 | 52.9 | 16.0 | 344 |

A much larger proportion of teachers in open plan schools felt that a lot of change was required than held this opinion in traditional plan schools. Indeed, a quarter of the teachers in NST felt that little change was needed, compared to one-tenth in the open plan schools.

Parent and Neighbor Sample

The background characteristics of parents and neighbors were checked in terms of sex, length of residence in area, type of accommodation, and reasons for visiting school. Some of the peculiarities of our sample are indicated below.

1. Sex

In the parent sample, 56 per cent of the people interviewed were female, versus 52 per cent in the neighbor sample. This difference resulted from the SEF schools where 57 per cent of the parents interviewed were female. Because men and women gave similar answers to most questions, this difference was not believed to have serious consequences.

2. Length of Residence

Forty-six per cent of the persons interviewed across all types of schools had lived in the neighborhood less then two years; 27 per cent had lived in the neighborhood three to five years; and 27 per cent six or more years. However, more than 80 per cent of the respondents from NSO schools had lived in the neighborhood for two years or less. This was roughly three times as many respondents as did so in SEF and NST schools.

3. Type of Accommodation

The proportion of parents and neighbors who lived in different types of accommodation did not differ among types of schools. In total, 46 per cent of the neighbors and parents sampled lived in single family dwellings; 37 per cent in duplexes, triplexes, or town houses; and 17 per cent in high-rise accommodations. However, none of the parents and neighbors interviewed from NSO schools lived in apartments, whereas about a fifth did so in both SEF and NST schools.

Type of accommodation was also related to other factors. Table 19 shows:

Table 19: Type of Accommodation by Length of Residence, Frequency of Passing Building and Visiting School for Other Purposes.

| | Type of Accommodation | | |
|---|---|---|---|
| | Single Family Dwelling | Plexes Town-houses | Apts. |
| Number of Years in Neighborhood | | | |
| Less than 2 | 39.4 | 51.0 | 46.4 |
| 3-5 | 25.4 | 23.6 | 42.3 |
| 6, and 6 + | 35.2 | 25.5 | 11.3 |
| N | (264) | (208) | (97) |
| Frequency of Passing Building | | | |
| Often | 28.0 | 23.1 | 1.0 |
| Sometimes | 54.9 | 43.7 | 42.3 |
| Rarely | 17.0 | 33.2 | 56.7 |
| N | (264) | (208) | (97) |
| Visit School for Other Purposes | | | |
| Yes | 43.3 | 36.5 | 18.7 |
| No | 56.7 | 63.5 | 81.2 |
| N | (263) | (208) | (96) |

Apartment dwellers were not as likely as were occupants of other types of accommodation to have lived in the neighborhood for six or more years, to often have passed by the school building, or to have visited the school for purposes other than parent interviews or open house.

4. Visits to School Other than for Open House and Parent Interviews

Table 20 indicates that the respondents from NSO schools were unique in that half of them reported to be in the school building for reasons other than parent interviews or open house, compared to a third for SEF schools, and a fifth for NST.

Table 20: Distribution of Answers to Question "Have You Visited School Other Than for Open House and Parent Interviews" by Type of School, Years in Neighborhood, Frequency of Passing Building, Sex, and Type of Respondent

| | Yes | No |
|---|---|---|
| **Type of School** | | |
| SEF | 36.8 | 63.2 |
| NSO | 50.5 | 49.7 |
| NST | 24.5 | 75.5 |
| N | (214) | (361) |
| **Numbers of Years in Neighborhood** | | |
| Less than 2 | 45.0 | 55.0 |
| 3 - 5 | 34.6 | 65.4 |
| 6, and 6 + | 26.8 | 73.2 |
| N | (214) | (361) |
| **Frequency of Passing Building** | | |
| Often | 50.4 | 49.6 |
| Sometimes | 44.3 | 55.7 |
| Rarely | 15.5 | 84.5 |
| N | (214) | (361) |
| **Sex** | | |
| Male | 60.7 | 50.4 |
| Female | 39.3 | 49.6 |
| N | (214) | (361) |
| **Type of Respondent** | | |
| Parents | 53.0 | 47.0 |
| Neighbor | 20.4 | 79.6 |
| N | (214) | (361) |

Respondents who visited the school for other reasons (than parent interviews and open house) were more likely to be short term residents, to often pass by the building, to be male, and to be neighbors (not have children attending the school).

Thus, it was also true that in this particular sample, the neighbors and parents from NSO schools were more likely: to live in single family dwellings; to be short-term residents; and to visit the school building for reasons other than parent interviews or open house. These respondents were residents of new suburbs to a much greater extent than were the respondents from the other two types of schools.

It was apparent that these kinds of differences in no way resulted from the type of school but rather reflected accidental differences of neighborhood and district. Thus, we could not attribute with any certainty other differences we might have found among school types to either type of school or type of respondent. Accordingly, results will be presented for the whole sample rather than by type of school. Where parents from different school neighborhoods yielded different patterns from one another, both sets of data will be presented.

Summary

On the whole, three-quarters of the children interviewed indicated that they got their own way enough and that they liked school, while one-fifth reported that they were never bored in school.

The samples of teachers and principals in the three types of schools were virtually indistinguishable with respect to standard demographic and educational measures as well as the measures of innovativeness.

However, more teachers in the traditional schools liked the enclosed classroom than did teachers in the open plan schools. Over half the teachers in all types of schools felt that chalkboards were important, but more teachers in open plan schools felt that overhead projectors were important than did teachers in traditional plan schools.

Teachers in traditional schools spent more time planning than did teachers in open plan schools. On the other hand, more teachers in open plan schools admitted that the school program influenced their teaching than did teachers in traditional schools.

The majority of teachers saw themselves as having about the same influence on program change as the principals, and while they felt the students had some influence, they felt the parents had very little. However, the teachers would prefer that they have more influence, the principal somewhat less, and the students and parents somewhat less again than is now the case. Also, more teachers in open plan schools felt that considerable change was required than held this opinion in traditional plan schools.

# PART II

# UTILIZATION OF FACILITIES

# CHAPTER 4

## UTILIZATION - STUDENTS

### Introduction

Students, teachers, and parents and neighbors were queried about the ways in which they used their school buildings. For students and teachers, three main ways of using the building were investigated: movement, use of things, and interaction with people. These items will be treated separately for each group. Parents and neighbors were asked other questions.

### Movement

Students were asked to indicate the approximate amount of time they spent each day in their class area.

Table 19 Hours Spent in Class Area Across Types of School as Reported by Students

| Type of School | 3 Hrs. or Less % | Approx. 4 Hrs. % | 5 Hrs. or More % | N |
|---|---|---|---|---|
| SEF | 27.5 | 39.2 | 33.3 | 505 |
| NSO | 33.0 | 28.7 | 38.3 | 261 |
| NST | 10.7 | 34.1 | 55.2 | 299 |
| Total | 24.1 | 35.2 | 40.7 | 1,065 |

On the whole, while about 40 per cent indicated they used their class area for practically the whole day, about 25 per cent of all students claimed to spend less than three hours a day in their area. The proportion of students who spent the least amount of time in their home area was three times larger in open space schools than in the NST schools. More than half the students in NST schools spent most of their day in their home area, compared to about a third in the open space schools. Students from schools which were fully occupied were more likely to spend a high proportion of their day in their class area. These results were consistent with those from a related question which inquired about the frequency

with which the students moved out of their home area. A summary of the above findings is given in Table 22.

Table 22: Movement of Students by Type of School as Reported by Students

| Type of School | Movement of Students: 0 Times a Day % | 1-4 Times a Day % | 5 or More Times a Day % | N |
|---|---|---|---|---|
| SEF | 6.5 | 62.3 | 31.2 | 509 |
| NSO | 10.7 | 58.0 | 31.3 | 262 |
| NST | 9.8 | 77.4 | 12.8 | 305 |
| Total | 8.5 | 65.5 | 26.0 | 1,076 |

A small number of students never left their class area in all types of schools. However, in open space schools, the proportion who left frequently was three times as large (a third) as in NST (a tenth). Students who left their class area frequently were more likely to be in schools which were small, below occupancy, and which were located in higher socio-economic areas.

Another measure of movement in the buildings was frequency of visits to the library. These results are presented in Table 23.

Table 23: Frequency of Library Use as Reported by Students, Across Types of Schools

| Type of School | Frequency of Visits: Less Than Once a Wk. % | 1-4 Times a Wk. % | 5 or More Times a Wk. % | N |
|---|---|---|---|---|
| SEF | 11.0 | 48.3 | 40.7 | 509 |
| NSO | 20.3 | 50.5 | 29.1 | 261 |
| NST | 23.7 | 58.2 | 18.1 | 304 |
| Total | 16.9 | 51.7 | 31.5 | 1,074 |

On the average, about a third of all the students surveyed visited their school library five or more times per week; about half of that number visited it less than once a week. There were extreme differences among types of schools: 40 per cent of the students in SEF schools visited the library five or more times a week; 30 per cent did so in NSO schools; and 20 per cent in NST schools. This is strong evidence that the larger libraries in the modern school buildings are in fact being used.

Library use was highest in smaller schools, schools occupied below rated capacity, and schools in higher socio-economic districts. Students who made frequent use of

the library were much less likely to be bored in school than those who used it more sparingly.

Movement can also take place when students go out of the school for field trips. The frequency of field trips for each type of school is presented in Table 24.

Table 24: Frequency of Field Trips Across Types of Schools as Reported by Students

| Type of School | Frequency of Field Trips: 5 Times or Less per Year % | 6 or More Times per Year % | N |
|---|---|---|---|
| SEF | 72.0 | 28.0 | 503 |
| NSO | 60.4 | 39.6 | 260 |
| NST | 74.9 | 25.1 | 303 |
| Total | 70.0 | 30.0 | 1,066 |

About a third of the students surveyed journeyed out of the school six or more times a year. The proportion was somewhat higher in NSO schools than either SEF or NST.

Students who attended schools which were larger, at or above capacity, and which were located in lower socio-economic districts were more likely to go on field trips as were students whose mother tongue was not English.

## Use of Furniture and Equipment

How students use the things about them is an important aspect of their use of the total facility.

### 1. Furniture

Students were asked how often during the year they rearranged tables or desks or moved a bookcase, cupboard, or shelf. Answers to the questions were combined into an index. The results appear in Table 25.

Table 25: Alteration of Furniture Across Types of Schools as Reported by Students

| Type of School | Index of Alteration: Low % | Medium % | High % | N |
|---|---|---|---|---|
| SEF | 0.6 | 23.2 | 76.2 | 509 |
| NSO | 1.1 | 42.9 | 55.9 | 261 |
| NST | 2.0 | 48.0 | 50.0 | 304 |
| Total | 1.1 | 35.0 | 63.9 | 1,074 |

Practically no students indicated that they had never helped to modify the environment by altering furniture. About two-thirds had high scores indicating a lot of alteration of furniture. The scores were considerably higher in SEF schools than in non-SEF. This was to be expected because SEF casework was designed to be altered and rearranged by the students. The results suggested that the casework was being rearranged as intended.

More students participated in altering furniture in schools that were smaller, below rated capacity in occupancy, and which were located in higher socio-economic districts.

2. Audio-Visual Use

An index of use of audio-visual equipment by students was also developed. This index incorporated answers from questions about the frequency of use of movies, filmstrips and slides, tape recorders, and TV. The full range of scores on the index was divided into three categories for ease of presentation. The results are shown in Table

Table 26: Index of Student Use of AV Equipment Across Types of Schools as Reported by Students

| | Audio-Visual Use | | | |
|---|---|---|---|---|
| Type of School | Low % | Medium % | High % | N |
| SEF | 26.5 | 45.0 | 28.5 | 505 |
| NSO | 16.5 | 43.9 | 39.6 | 255 |
| NST | 45.5 | 40.9 | 13.5 | 303 |
| Total | 29.5 | 43.6 | 26.9 | 1,063 |

There was wide variation among students in the three types of schools on their scores on the AV use index. Students in NSO schools were heavier users of AV than those in SEF schools, and much heavier than those in NST schools. The difference arose mainly from extensive use of film and TV rather than from use of slides, filmstrips, or tape recorders.

Students who were from medium-sized schools, below rated occupancy levels, and schools in middle range socio-economic districts were more likely to be heavier AV users. Boys and New Canadian students were heavier users than girls or native born students. Students who were bored were also likely to be low users of AV.

Possibly, the size of AV inventory had some effect on these results. Just as larger libraries contributed to heavier library use, more AV equipment could have affected heavier AV use. More detailed analysis could explore the possibilities.

## Interaction with People

Buildings can contribute to or minimize human interaction. One measure of the amount of human contact in a building was gained by asking students how many different teachers and students they spoke to on an average day. The results from these questions are presented in Tables 27 and 28.

Table 27: Average Number of Teachers Contacted Daily by Students Across Types of Schools as Reported by Students

| | Average Number of Teachers Contacted | | | |
|---|---|---|---|---|
| Type of School | One or Two % | Three % | Four or More % | N |
| SEF | 24.8 | 26.2 | 49.1 | 508 |
| NSO | 35.9 | 23.3 | 40.9 | 262 |
| NST | 40.2 | 23.4 | 36.5 | 304 |
| Total | 31.8 | 24.7 | 43.5 | 1,074 |

Table 28: Average Number of Other Students Contacted Daily by Students Across Types of Schools as Reported by Students

| | Average Number of Students Contacted | | | |
|---|---|---|---|---|
| Type of School | 0 - 10 % | 11 - 25 % | 26 or More % | N |
| SEF | 30.3 | 39.1 | 30.6 | 509 |
| NSO | 28.6 | 39.7 | 31.7 | 262 |
| NST | 36.2 | 27.6 | 36.2 | 304 |
| Total | 31.5 | 36.0 | 32.5 | 1,075 |

The results concerning number of teachers contacted were straightforward. About one-third of the students in NST schools contacted four or more teachers daily; the proportion was somewhat higher in NSO schools and was highest--50 per cent--in SEF schools. It appears that there was more teacher contact in open space schools than in traditional plan space and more in SEF than non-SEF open.

The results concerning the number of students contacted daily appear not to vary significantly with school type. A somewhat higher proportion of students in NST schools contacted 26 or more students daily. A more precise measure of interaction among students could be attempted in the future through direct observation.

1. Students Working Independently

There was no difference among types of schools in the frequency with which students claimed to work alone or in small groups. About half the students in all types of schools reported that they often worked independently or in small groups. (Direct observation of students however, did not confirm these statements--see p. 101.) Students who claimed to work independently often were more likely to have learned English as a second language and to be attending school in a middle level socio-economic district. They were also somewhat more likely to like school.

## CHAPTER 5

## UTILIZATION - TEACHERS

In part, teachers' use of a school building is reflected in how they encourage or permit their students to move about in it and use furniture and equipment. Teacher usage is also reflected in their interaction with other teachers.

### Teacher Report on the Movement of Students

Teachers were asked how frequently their students visited the school library. The results supported those obtained when the students were asked the same question. Libraries were used more heavily in open plan schools than in traditional plan and more heavily in SEF schools than in NSO schools. Students' library use, as reported by teachers, appears in Table 29.

Table 29: Frequency of Library Use as Reported By Teachers Across Types of Schools

| Type of School | Frequency of Student Visits: Less Than Once A Week % | Once or Twice A Week % | Three or Four Times a Week % | Five or More Times a Week % | N |
|---|---|---|---|---|---|
| SEF | 3.9 | 37.9 | 16.3 | 41.8 | 153 |
| NSO | 4.0 | 44.0 | 24.0 | 28.0 | 50 |
| NST | 14.5 | 54.2 | 14.5 | 16.9 | 83 |
| Total | 7.0 | 43.7 | 17.1 | 32.2 | 286 |

No difference was noted across types of schools in the reply on average number of field trips. A very few teachers reported that their students never went on field trips; about a quarter reported one or two; about half, three to five; and the remaining quarter, six or more. Teachers whose students went on more field trips were more likely to work with individuals and small groups rather than the whole class, and to report heavier student use of the library.

Use of Furniture and Equipment

The findings regarding teacher rearrangement of desks and tables are presented in Table 30. The Table shows that a greater proportion of SEF teachers rearranged furniture more frequently than did so in non-SEF schools. This was to be expected because the design of the SEF tables made them easy to move. The result was consistent with that obtained from the student questionnaires.

Table 30: Frequency of Rearrangement of Tables and Desks Across Types of Schools As Reported by Teachers

| | Frequency of Rearrangement Per Year | | | |
|---|---|---|---|---|
| Type of School | 0 - 3 Times % | 4 - 10 Times % | 11 or More Times % | N |
| SEF | 28.0 | 47.5 | 24.6 | 179 |
| NSO | 47.2 | 39.6 | 13.2 | 53 |
| NST | 33.0 | 49.5 | 17.6 | 91 |
| Total | 32.5 | 46.7 | 20.7 | 323 |

Furthermore, teachers in SEF schools reported that they adjusted shelves in containers more frequently than did teachers in other schools. The pattern was similar to that reported in Table 28 for rearrangement of furniture. Again, this result was to be expected because the design of the SEF casework shelves facilitates movement.

Another way of altering furniture is to adjust the heights of desks or tables; persons who indicated they did not have height adjustable furniture were removed from the analyses. The reports from teachers were quite clear. The heights of tables and desks in SEF schools were adjusted more frequently than in non-SEF schools. The extent of these differences is apparent from Table 31.

Table 31: Frequency of Height Adjustment to Tables and Desks Across Types of Schools As Reported by Teachers

| | Frequency of Adjustment per Year | | | |
|---|---|---|---|---|
| Type of School | Zero % | 1 - 2 Times % | 3 or More Times % | N |
| SEF | 49.0 | 36.9 | 14.1 | 149 |
| NSO | 85.7 | 14.3 | 0.0 | 35 |
| NST | 63.6 | 31.8 | 4.6 | 44 |
| Total | 57.5 | 32.5 | 10.1 | 228 |

Four questions were asked of teachers in SEF schools concerning their use of particular components of SEF casework. Thirty per cent of the teachers had changed doors on containers; about 15 per cent had done so three or more times. Ninety

per cent had rearranged storage containers; about 66 per cent had done so three or more times. About 33 per cent of the SEF teachers had used a portable sink, and about a third of that number (11 per cent) had done so five or more times. Eighty per cent had used an electric-electronic service column, 40 per cent, five or more times.

Not all of these features were present in every SEF school. The proportions stated in the preceding paragraph were of teachers who had access to the particular components. On the whole, the casework components seemed to be well used.

These results are indicated in Table 32.

Table 32: Frequency of the Use of Specific Casework Components as Reported by Teachers

| Component | Frequency of Use: Zero % | Medium[1] % | High[1] % | N |
|---|---|---|---|---|
| Bookshelves | 14.0 | 78.1 | 7.9 | 178 |
| Container doors | 70.7 | 25.0 | 4.3 | 140 |
| Storage containers | 10.1 | 69.1 | 20.8 | 178 |
| Portable sink | 68.1 | 22.2 | 9.6 | 135 |
| Electric column | 19.7 | 42.7 | 37.5 | 152 |

Relatively few teachers had folding or sliding walls in their classrooms. Of those who did (N = 144) about 70 per cent indicated that they had not either opened or closed them. About 15 per cent had used them one to three times during the year, while the remaining 15 per cent had used them more frequently. There were no differences among types of schools on this measure. These low use levels should cause planners to scrutinize future provision of folding walls quite carefully.

Teachers also reported on student use of audio-visual devices. They were questioned specifically about student use of four particular items--film, TV, tape recorders, and slides or filmstrips. The results from the four questions were combined to form an index of AV use.

The index is identical to the one described for student reporting of AV use.

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[1]The cutting points differed from item to item; high frequency includes: bookshelves, 11 or more times per year; doors, 6 or more times per year; sinks, 5 or more times per week; electric service column, 5 or more times per week.

The results for all schools combined on the use of individual AV items are presented in Table 33. A summary of the index of AV use for each type of school appears in Table 34.

Table 33: Frequency of Student Use of Various Audio-Visual Aids in all Schools as Reported by Teachers

| AV Aids | Frequency of Use: Less Than Once a Month % | 1-4 Times a Month % | 5 or More Times a Month % | N |
|---|---|---|---|---|
| Film (16 mm., 8 mm.) | 40.9 | 40.2 | 18.9 | 338 |
| Television | 67.5 | 19.6 | 13.0 | 338 |
| Tape recorders | 21.6 | 23.7 | 54.7 | 338 |
| Filmstrips or slides | 26.9 | 37.3 | 35.8 | 338 |

The use of tape recorders is very widespread as is the use of film loops. Considerable use is made of both 8 mm. and 16 mm. film, but less of television. The use of film and television was much higher in NSO schools than in NST or SEF. This results in NSO schools having higher scores on the index of AV used.

Table 34: Index of Student Use of Audio-Visual Equipment as Reported by Teachers

| Type of School | Index of AV Use: Low % | Medium % | High % | N |
|---|---|---|---|---|
| SEF | 25.9 | 40.2 | 33.9 | 189 |
| NSO | 7.4 | 33.3 | 59.3 | 54 |
| NST | 13.7 | 36.8 | 49.5 | 95 |
| Total | 19.5 | 38.2 | 42.3 | 338 |

Teachers in NSO schools made more extensive use of AV aids than they did in NST schools and much more use than teachers in SEF schools. Reports from students are in accord with the results regarding the extent of use in NSO schools. Further analysis could reveal more about bases of these differences and the effect of different equipment inventories.

Interaction with Other Teachers

Most new schools have teacher planning rooms. This may in part have accounted for the finding that 66 per cent of open space teachers did their planning and preparation at school while only 51 per cent of the teachers in NST schools used the school as their main preparation base.

Part of the reason more open space teachers worked at school more than at home is that they engaged in more joint planning with other teachers. These results are shown in Table 35.

Table 35: Average Amount of Time Spent in Team Planning Across Types of Schools

| Type of School | Amount of Time | | N |
|---|---|---|---|
| | 0 - 2 Hours % | 3 or More Hours % | |
| SEF | 69.1 | 30.9 | 204 |
| NSO | 77.2 | 22.8 | 57 |
| NST | 84.2 | 15.8 | 101 |
| Total | 74.6 | 25.4 | 362 |

A quarter of all teachers surveyed spent three or more hours a week in team planning with other teachers. The proportion was lowest in NST schools, although a significant number (15.8 per cent) were devoting this amount of time to team planning. (For total amount of time spent planning, see Table 13, p. 25.)

Teachers who spent more time team planning were also more likely to have students who used the library frequently.

## CHAPTER 6

## UTILIZATION - PARENTS AND NEIGHBORS

This Chapter is concerned with the reasons why and the frequency with which parents and neighbors visit schools, their perceived freedom to visit schools, their desires to take part in school activities, their opinions about community use of schools, and their awareness of who the school officials are.

### Respondents' Reasons for Visiting Schools

About two-thirds of the parents interviewed had attended a parent-teacher interview during the school year, and a similar proportion had been to an open house at their own school. Approximately a third of all the respondents had been in the school for some purpose other than parent interview or open house. This was true for half the parent sample and about a fifth of the neighbors. Two-thirds of the parents who had visited the school for other purposes had attended school-related activities as opposed to community related ones. The proportion was reversed for neighbors.

Table 36 Frequency of Parents and Neighbors Passing by School

| | Parents % | Neighbors % | Total % |
|---|---|---|---|
| How often do you pass by the school? | | | |
| Often | 20.9 | 22.4 | 21.7 |
| Sometimes | 56.8 | 40.6 | 48.9 |
| Rarely | 22.3 | 37.0 | 29.5 |
| N | (296) | (281) | (577) |

Table 37 Reasons for Parents and Neighbors Visits to School

| | | | |
|---|---|---|---|
| Have you been inside the school for purposes other than open house or parent interview? | | | |
| Yes | 53.0 | 20.4 | 37.2 |
| No | 47.0 | 79.6 | 62.8 |
| N | (296) | (279) | (575) |
| What other purposes? | | | |
| Community | 35.9 | 61.8 | 42.8 |
| School | 64.1 | 38.2 | 57.2 |
| N | (153) | ( 55) | (208) |

Table 38 Frequency of Parents' and Neighbors' Visits to Schools

| | Parents % | Neighbors % | Total % |
|---|---|---|---|
| How often have you been inside the school for all purposes? | | | |
| 1 - 3 times | 54.1 | 87.9 | 61.4 |
| 4 - 19 times | 45.9 | 12.1 | 38.6 |
| N | (242) | ( 66) | (308) |

During the eight months prior to the data collection, 15 per cent of all the respondents had been in their local school building for the purpose of a community related or sponsored activity. As one would expect, more parents had visited the school, and most of them a number of times, whereas relatively few neighbors had visited and those who did, did so infrequently.

## Perceived Freedom to Visit Schools

Parents were asked if they felt free to visit their child's class during school hours. Two-thirds answered affirmatively. More mothers than fathers felt free in this regard. There was a strong relationship between type of residence and answers to this question.

Table 39 Parents and Neighbors Perceived Freedom to Visit Schools

| | Single Family Dwelling % | Plexes % | Apartment % |
|---|---|---|---|
| Do you feel free to visit your child's class during schools hours | | | |
| Yes | 64.8 | 78.4 | 26.3 |
| No | 35.2 | 21.6 | 73.7 |
| Total | 49.2 | 35.5 | 15.3 |
| N | (122) | ( 88) | ( 38) |

Fewer respondents from apartment buildings felt free to visit their child's classroom compared to parents from other types of dwellings. The results do not suggest why this is so. One might speculate that apartment dwellers are different, that school people treat apartment dwellers differently, or that apartment living causes people to regard their institutions as more distant. More likely, it results from a higher proportion of single-parent families or of working mothers who simply are not available during the daytime for school visits.

The relationship discussed above did not reappear in answers to the question, "Would you like to take part in regular school activities?"

Table 40 Desire of Neighbors and Parents to Take Part in Regular School Activities

| | % | N |
|---|---|---|
| I take part already | 11.7 | ( 33) |
| Yes | 31.1 | ( 88) |
| No | 57.2 | (162) |

A tenth of the parents already took part in regular school activities and another one-third would like to. There was apparently a sizeable resevoir of goodwill, if not easily scheduled manpower, existent in all communities.

Community Use of Schools

Three questions were asked directly concerning community use of schools. There were no differences between parents and neighbors in the pattern of their answers to these questions. The results were as follows:

Table 41 Community Use of School

Who should be able to use the school building outside of school hours?

| | % | |
|---|---|---|
| Children and teachers | 10.1 | |
| Children, teachers, and parents | 10.3 | |
| All members of the community | 79.6 | N = 535 |

When a school is kept open for use by the community, who should pay the extra cost (janitors, lights, etc.)?

| | | |
|---|---|---|
| The school board | 25.6 | |
| The people who use it | 40.5 | |
| Both the board and the people who use it | 33.9 | N = 519 |

When should the school building be open for use by the community?

| | | |
|---|---|---|
| Never | 10.4 | |
| Evenings and weekends by permit | 79.0 | |
| Evenings and weekends without permit and anytime including school hours | 10.6 | N = 509 |

Four-fifths of the respondents believed that all members of the community should be allowed to use the school building. About a tenth would restrict the use to children and teachers; and another tenth to children, teachers, and parents. There was less unanimity about who should pay for the extra costs; a quarter indicated that the school board should absorb the extra, while a third believed that extra costs should be shared between the board and users. The remainder, some 40 per

cent, were of the opinion that the users should pay all the extra costs involved in keeping a building open for the community. Most people favored the existing arrangements whereby schools were available to the public evenings and weekends by permit. A tenth believed the schools should never be open; presumably these were the same people who wished schools to be used exclusively by children and teachers. Another tenth of the respondents would either remove the permit system or extend the availability of the buildings to include regular school hours.

## Information Level

Although parents did a little better than neighbors, most people could not name any of their public representatives. The respondents were asked, "Please name two of your school trustees," and "Who is the school principal?" The results are presented below:

Table 42 Parents and Neighbors Knowledge of Names of Trustees and Principals

| | Parents % | Neighbors % | Both % |
|---|---|---|---|
| Name of trustees | | | |
| One correct | 15.0 | 9.5 | 12.3 |
| None correct | 85.0 | 90.5 | 87.7 |
| N | (293) | (275) | (568) |
| Name principal | | | |
| Correct | 62.9 | 9.6 | 37.3 |
| Incorrect | 37.1 | 90.4 | 62.7 |
| N | (291) | (270) | (561) |

Fifteen per cent of the parents and 10 per cent of the neighbors were able to name at least one trustee. Two-thirds of the parents and a tenth of the neighbors were able to name the school principal. Clearly, the school principal was a prime contact for most parents. People who did not have children in the school (whom we have labelled as neighbors) were no more likely to know the principal than they were to know their trustee.

## SUMMARY: UTILIZATION - ALL USERS

Both teachers and students reported that students in open plan schools moved about in the school more often than was reported about students in traditional schools. Generally, students in open plan schools spent less time in class, moved about more in their class areas, visited the library more frequently, and went on field trips than students in traditional schools.

Teachers and students in open plan schools rearranged the furniture and desks more often than teachers in traditional schools. The observers reported that in the open plan schools, more of the furniture was organized in a random pattern than in the traditional schools.

Students in the NSO schools used audio-visual equipment more often than students in the SEF and NST schools. However, the data on audio-visual use in the SEF and NST schools was not clear-cut. The observation data did indicate that the students in open plan schools used a greater variety of tools than students in the traditional schools.

Teachers in open plan schools appeared to be more informal and to have more personal contact with students than did teachers in traditional schools. Students in open space appeared to contact more teachers than in traditional plan space. More time was spent by teachers in open plan schools in team planning with other teachers than was spent by teachers in traditional schools.

Also, students in open plan schools worked alone or in small groups more often than they did in traditional space.

Finally, while itwas true that <u>overall</u> there seemed to be more activity in open plan schools than in traditional schools, there were traditional schools which had as much activity, if not more, than some open plan schools.

PART III

SATISFACTION WITH FACILITIES

50

# CHAPTER 7

## SATISFACTION - STUDENTS

This Chapter has two main sections: first, the students' level of satisfaction with school in general; and second, their satisfaction with diverse aspects of the school building. The second section concerning the facility has four sub-sections: school building as a whole, environmental characteristics, specialized areas, and amenities.

### General Satisfaction

How a student felt about school in general was presumed to determine partly how satisfied he would be with various aspects of the physical facility. Thus, if some proportion of students were negative toward school, it was presumed they would also have negative opinions about all characteristics of it. However, where students who liked school in general were dissatisfied with the individual facilities, it was probable that there was some substantive basis for their dissatisfaction.

General satisfaction was determined from the answers given by students when asked earlier about freedom, boredom, and liking school.[1] From these replies, it was apparent that on the whole, students expressed general satisfaction with their schools. It was also apparent from that discussion that boredom was a second good index of general satisfaction because it was independent of accidental factors such as place of birth and residence and was also independent of type of school.

### Satisfaction with Facility

#### 1. School Building as a Whole

Approximately 70 per cent of all students liked their school building "a lot" compared to other school buildings they knew. However, a larger proportion of students in open plan schools gave their newer buildings a higher rating.

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[1] See pages 21-22 for fuller discussion.

Although children who liked going to school tended to like the school building, and more children liked going to school "a lot" in NSO than in SEF schools, nevertheless, results for the two types of open plan schools were very similar. About three-quarters of all open plan students liked the building "a lot".

Also, students who were girls, were never bored, lived in high socio-economic areas, and attended small schools which were below capacity, tended to like the building as a whole. However, fewer students in medium-sized schools liked their buildings than did those in large ones.

Table 43: Distribution of Students' Ratings of School Buildings Across Types of Schools

| Type of School | Amount of Liking for School Building: A Lot % | A Little % | Neutral & Dislike % | N |
|---|---|---|---|---|
| SEF | 73.6 | 17.3 | 9.2 | 469 |
| NSO | 76.0 | 17.8 | 6.2 | 242 |
| NST | 56.0 | 31.2 | 12.8 | 266 |
| Total | 69.4 | 21.2 | 9.4 | 977 |

a. Appearance and its importance:--Overall, the appearance of the school was very important to 25 per cent of the students and somewhat important to about another 40 per cent. The remaining students were indifferent to appearance. More students who liked school felt appearance was important than those who did not. Students who were never bored were more likely to assign high importance to appearance than those who were often bored. Also, students from lower socio-economic districts were more likely to feel appearance was important than those in more affluent districts. Students who cared about appearance were much more likely to like both the exterior and the interior of the school building than those who were indifferent.

Table 44: Distribution of Students' Ratings of Exterior Appearance Across Types of Schools

| Type of School | Amount of Liking for Exterior Appearance: A Lot % | A Little % | Neutral % | Dislike % | N |
|---|---|---|---|---|---|
| SEF | 41.6 | 21.2 | 13.3 | 23.9 | 510 |
| NSO | 61.8 | 24.4 | 9.9 | 3.8 | 262 |
| NST | 28.2 | 38.4 | 18.4 | 15.1 | 305 |
| Total | 42.7 | 26.8 | 13.9 | 16.5 | 1,077 |

Table 45: Distribution of Students' Ratings of Interior Appearance Across Types of Schools

| Type of School | Amount of Liking for Interior Appearance: A Lot % | A Little % | Neutral and Dislike % | N |
|---|---|---|---|---|
| SEF | 79.8 | 12.7 | 7.5 | 510 |
| NSO | 88.6 | 6.8 | 4.6 | 263 |
| NST | 45.6 | 33.1 | 21.3 | 305 |
| Total | 72.3 | 17.1 | 10.7 | 1,078 |

A higher proportion of students in NSO schools liked both the exterior and the interior appearance of the schools than did students in SEF schools. However, more of the SEF students liked the appearance of their schools than students in NST. Roughly, 60, 40, and 30 per cent of the students in NSO, SEF, and NST schools respectively liked the exterior appearance a lot. The approximate proportions of those who liked the interior appearance a lot were NSO - 90 per cent; SEF - 80 per cent; and NST - 45 per cent.

Interior appearances were attractive to a greater proportion of students than were exterior appearances across all types of schools. Nearly twice the number of SEF students liked their school interior as liked the exterior. The SEF exteriors were disliked by about a quarter of the students, while 15 per cent of students in NST disliked their schools' exterior appearances. The exterior appearances of NSO schools were disliked by very few students. More than twice as many students in NST schools disliked the interior appearance of their schools as did students in NSO or SEF schools. Overall, more students who were in new buildings preferred the appearance of their schools than did those in older buildings; and more students in NSO schools than in SEF schools liked their school's appearance.

Students who attended small schools or schools which were occupied below their rated capacity or which were in higher socio-economic districts were more likely to like both the exterior and interior appearances of their schools. In addition, more girls than boys liked a school's interior appearance.

2. Environmental Characteristics

These characteristics include atmosphere, noisiness, and crowdedness.

a. Atmosphere:--The results obtained regarding humidification were not reconcilable with other known facts. No comprehensible interpretation was possible. Accordingly,

the results were not included in this report.

Practically no students (about three per cent) felt their class area was often too cold. About two-thirds of the students in SEF and NSO schools indicated that their class area was never too cold. This was almost double the proportion of those in traditional schools who were never too cold.

Table 46: Distribution of Students by Frequency of Problem with Cold Temperature Across Types of Schools

| Type of School | Frequency of Class Area Judged Too Cold | | | |
|---|---|---|---|---|
| | Often % | Sometimes % | Never % | N |
| SEF | 3.1 | 32.7 | 64.1 | 510 |
| NSO | 3.4 | 35.0 | 61.6 | 263 |
| NST | 3.6 | 60.9 | 35.5 | 304 |
| Total | 3.3 | 41.2 | 55.4 | 1,077 |

About a tenth of all students in all types of schools often found their class area too warm. This was three times as many as found it often too cold. In the NSO schools, about a fifth of the students indicated that their class area was never too warm; two-fifths (38 per cent) were never too warm in SEF schools. In NST schools, less than a tenth of the students were never too warm. The effects of air cooling are quite apparent in these results. (See Table 46)

Twice as many boys as girls were often too warm (14.5 per cent vs. 6.0 per cent) and too cold (4.6 per cent vs. 2.2 per cent). Children who liked school were more likely to report their class area as "never too cold." A higher proportion of students who were never bored were satisfied with temperature conditions, both hot and cold, than those who were often bored.

Also with this factor, students who attended schools which were small vs. large, below capacity vs. at or above rated capacity, or which were located in higher socio-economic districts were likely to be satisfied with temperature conditions.

Table 47: Distribution of Students by Frequency of Problem with Warm Temperature Across Types of Schools

| Type of School | Frequency of Class Area Judged Too Warm: Often % | Sometimes % | Never % | N |
|---|---|---|---|---|
| SEF | 10.0 | 51.8 | 38.2 | 510 |
| NSO | 9.1 | 70.0 | 20.9 | 263 |
| NST | 10.8 | 80.3 | 8.9 | 305 |
| Total | 10.0 | 64.3 | 25.7 | 1,078 |

b. Noisiness:--Roughly a quarter of the students indicated that their class areas were often too noisy. The proportion was much higher in open space schools (about a third) than in traditional plan (about a fifth). About a tenth of the students in open space schools reported that their class areas were never too noisy, while the proportion in traditional plan schools was much greater.

Students who found their class area often too noisy were more likely to be boys than to be girls, to dislike school A higher proportion of students in large schools or schools in lower socio-economic areas found their class areas often noisy, compared to their counterparts in smaller schools or schools in higher socio-economic areas.

Table 48: Distribution of Students by Satisfaction with Noise Level Across Types of Schools

| Type of School | Frequency of Class Area Being Noisy: Often % | Sometimes % | Never % | N |
|---|---|---|---|---|
| SEF | 28.7 | 61.9 | 9.4 | 509 |
| NSO | 33.2 | 56.9 | 9.9 | 262 |
| NST | 18.4 | 65.6 | 16.1 | 305 |
| Total | 26.9 | 61.7 | 11.4 | 1,076 |

c. Crowdedness:--Most students (about 55 per cent) never felt crowded in all the types of schools studied. A slightly higher proportion (12 per cent) of those in NSO schools often felt crowded than did those in other types. A slightly smaller percentage of students in SEF schools never felt crowded than students in the other two types.

The proportion of students who often felt crowded was much larger in large schools than in small, in schools at or above capacity as contrasted with schools under rated capacity, and in schools in lower socio-economic districts compared to those

in higher socio-economic areas. Students who disliked school were more likely to indicate that their class was too crowded than those who liked school. Similarly, students who were often bored were much more likely to report their class area crowded than those who were not bored.

Table 49: Distribution of Students by Frequency of Feeling Crowded Across Types of Schools

| Type of School | Frequency of Class Area Judged Too Crowded | | | |
|---|---|---|---|---|
| | Often % | Sometimes % | Never % | N |
| SEF | 7.3 | 41.8 | 50.9 | 509 |
| NSO | 11.9 | 31.0 | 57.1 | 261 |
| NST | 8.3 | 32.5 | 59.3 | 302 |
| Total | 8.7 | 36.6 | 54.8 | 1,072 |

3. Specialized Areas

a. Library:--Practically all students (over 90 per cent) in all types of schools liked the library. This is true despite the fact that in general the newer open space schools tended to have larger and more convenient library resource centres than did NST schools. Likewise, frequent visits to the library did not necessarily influence students liking or disliking of the facility. More SEF students than than either NSO or NST visited the library frequently, but the same high proportion of all students liked it.

b. Music Room:--Again, most students (about 70 per cent) who had a music room in their school (N = 779) liked it. Despite the great variation in the styles and physical scales of music rooms, no differences appeared in the proportion of students who liked this area in various types of schools. However, the same students who were often bored or who disliked school were also those most likely to dislike the music room.

c. Lunch Room:--About a third (308) of all students in the sample ate lunch at school. Half of them claimed to like the place where they ate lunch, while a quarter disliked it. There were no differences between types of school in the proportion of children who liked their lunch room. Again, the bored students and those who disliked school were the most likely to dislike the lunch room.

d. Gymnasium:--On the whole, as many students (90 per cent) liked the gym as liked the library. Students who were bored were no more or less likely to like

the gym than those who were not, but students who liked school were more likely to like the gym.

Table 50: Distribution of Students According to Their Satisfaction with the Gym Across Types of Schools

| Type of School | Amount of Liking for the Gym: Like % | Neutral % | Dislike % | N |
|---|---|---|---|---|
| SEF | 92.8 | 4.8 | 2.4 | 499 |
| NSO | 94.9 | 3.5 | 1.6 | 255 |
| NST | 86.8 | 8.1 | 5.1 | 295 |
| Total | 91.6 | 5.4 | 3.0 | 1,049 |

4. Amenities

Amenities, as used here, included storage facilities for students, furniture, and private work space.

a. Student storage facilities:--The type of student storage facility varied from school to school. Nevertheless, two-thirds of all the students claimed to like the storage place for their coats, hats and boots, while a tenth disliked it. The greatest satisfaction was in the NSO schools and the least was in SEF schools. About a fifth of students in SEF schools disliked the facilities for storing outdoor wear.

Across all the schools, girls were less critical of these facilities than were boys. Similarly, students who were bored or who disliked school (these of course, were more likely to be boys) were more likely to dislike the facilities for outdoor wear. These facilities were more likely to be disliked by students in large schools compared to small, lower socio-economic districts compared to higher, and in schools which were occupied at or above rated capacity, as contrasted with those below rated capacity.

Table 51: Distribution of Students by the Extent of Satisfaction with Facilities for Storing Outdoor Wear Across Types of Schools

| Type of School | Satisfaction with Storage for Outdoor Wear: Like % | Neutral % | Dislike % | N |
|---|---|---|---|---|
| SEF | 57.9 | 24.6 | 17.5 | 508 |
| NSO | 75.3 | 19.8 | 4.9 | 263 |
| NST | 68.9 | 21.5 | 9.6 | 302 |
| Total | 65.2 | 22.6 | 12.2 | 1,073 |

About 60 per cent of all students claimed to like the storage facilities for personal effects, while a fifth disliked them. (Personal effects include books, pencils, and items such as wallets and trinkets.) The results were more favorable in the NST schools and less favorable in SEF. About a third of the students in SEF schools disliked their storage provisions for personal effects, although half liked it. In SEF schools, this item was a tote box, while in NST schools, it was most commonly a desk drawer.

Again, students who liked school or were never bored or who were girls were more likely to like the storage provision for personal effects.

Table 52: Distribution of Students by the Extent of Satisfaction with Facilities for Storing Personal Effects Across Types of School

| Type of School | Satisfaction with Storage for Personal Effects | | | |
|---|---|---|---|---|
| | Like % | Neutral % | Dislike % | N |
| SEF | 50.3 | 18.3 | 31.4 | 509 |
| NSO | 65.5 | 18.0 | 16.5 | 261 |
| NST | 71.1 | 20.7 | 8.2 | 305 |
| Total | 59.9 | 18.9 | 21.2 | 1,075 |

b. Furniture:--On the average, 40 per cent of the students claimed to like the furniture. Fifty per cent of the students in NSO schools rated their furniture in the highest satisfaction category, 33½ per cent did so in NST schools, and about 40 per cent in SEF schools. Less than 10 per cent of the students in NSO schools disliked their furniture; the proportion was somewhat higher in SEF and NST schools.

Other relationships were noted. There was a higher proportion of satisfied students in smaller schools, below capacity schools, and schools which were located in higher socio-economic districts. The students who were never bored and who liked schools were more likely to like the furniture than those who were bored or who disliked school. Double the proportion of students to whom appearances were important (about 50 per cent) liked their furniture as did those who were indifferent to appearance.

Table 53: Distribution of Students by Satisfaction with Furniture Across Types of Schools

| Type of School | Satisfaction with Furniture: Like a Lot % | Like a Little % | Neutral % | Dislike % | N |
|---|---|---|---|---|---|
| SEF | 42.2 | 32.5 | 11.6 | 13.7 | 510 |
| NSO | 53.6 | 24.3 | 14.4 | 7.6 | 263 |
| NST | 31.1 | 42.0 | 11.8 | 15.1 | 305 |
| Total | 41.8 | 33.2 | 12.3 | 12.6 | 1,078 |

c. Private work space:--More than half of all students surveyed claimed not to have their own personal work station. This proportion was one-third in NST schools, three-quarters in NSO, and three-fifths in SEF schools. The proportion of students who had their own work place was higher in large schools, schools at or above rated capacity, and schools in lower socio-economic districts. These results demonstrated quite clearly that "open style" methods were being used in some traditional plan buildings, while more conventional methods were in use in some open plan buildings.

Table 54: Distribution of Students Who Have Their Own Work Place Across Types of Schools

| Type of School | Have Own Work Place: Yes % | No % | N |
|---|---|---|---|
| SEF | 39.5 | 60.5 | 506 |
| NSO | 21.8 | 78.2 | 262 |
| NST | 66.8 | 33.2 | 304 |
| Total | 42.9 | 57.1 | 1,072 |

A personal work place is very important to a quarter of all students surveyed and of some importance to another third. A higher proportion of students in traditional plan schools indicated that a personal work place was important than did so in open plan schools. In all types of schools, a higher proportion of students regarded a personal work place as important than actually stated that they had one. However, further analysis revealed that half of the students who do not have their own work place regarded a work place as important; and that three-quarters of the students who do have their own work place felt it was important. Perhaps students who are deprived of a personal work place learn to live without it or perhaps just having a personal work place makes it assume importance.

Girls were somewhat more likely than boys to attach importance to a personal work place, as were students who liked going to school. Also, a higher proportion of students claimed a personal work place was important in large schools and in schools which were occupied at or above their rated capacity.

Table 55: Distribution of Students by Importance of Personal Work Place Across Types of Schools

| Type of School | Importance of Private Work Place | | | | |
|---|---|---|---|---|---|
| | Very Important % | Important % | Neutral % | Unimportant % | N |
| SEF | 27.1 | 30.0 | 26.5 | 16.5 | 510 |
| NSO | 28.6 | 26.3 | 26.0 | 19.1 | 262 |
| NST | 30.3 | 42.8 | 18.4 | 8.6 | 304 |
| Total | 28.3 | 32.7 | 24.1 | 14.9 | 1,076 |

## CHAPTER 8

## SATISFACTION - TEACHERS AND PRINCIPALS

In this Chapter, the reaction of teachers and principals to the school building as a whole is examined, then the specialized areas or facilities of the school, and thirdly the regular teaching areas or classrooms. The Chapter concludes with a brief section on principals' opinions.

The total sample (360) included all the regular teachers (247), all the specialist teachers (97), the vice principals and principals (16) in each type of school. Normally the results represent the whole sample; where this is not the case, it will be stated.

### Whole School (Teachers and Principals)

#### 1. Appearance

Overall, nearly 40 per cent of all teachers liked the outside. NSO teachers were well above average, and SEF teachers were below average. The proportion of SEF teachers who disliked the outside appearance was twice that of NST teachers and more than three times the percentage of NSO teachers.

The exterior tended to be liked by teachers in small schools and to be disliked by those who asked to teach in the school.

The interior appearance was liked by a much larger proportion of all teachers than was the exterior appearance. However, both types of open space were well above the average of thosewho liked the interior "a lot", while NST was far below. Only 10 per cent of all teachers disliked the interior. However, about 15 per cent of NST teachers disliked it; another quarter of NST teachers were neutral.

Teachers in small schools, regular classroom teachers without degrees, and teachers who asked to teach in the school tended to like the interior appearance. A

larger proportion of teachers in medium size schools, compared to those in both large and small schools, disliked the interior.

Table 56: Degree of Teacher Satisfaction With the Exterior Appearance of Their Schools

| Type of School | Teacher Satisfaction with Exterior Appearance | | | |
|---|---|---|---|---|
| | Like % | Neutral % | Dislike % | N |
| SEF | 32.4 | 25.5 | 42.2 | 204 |
| NSO | 59.3 | 28.8 | 11.9 | 59 |
| NST | 37.6 | 39.6 | 22.8 | 101 |
| Total | 38.2 | 29.9 | 31.9 | 364 |

Table 57: Degree of Teacher Satisfaction with the Interior Appearance of Their Schools

| Type of School | Teacher Satisfaction with Interior Appearance | | | | |
|---|---|---|---|---|---|
| | A Lot % | A Little % | Neutral % | Dislike % | N |
| SEF | 66.8 | 19.8 | 5.0 | 8.4 | 202 |
| NSO | 74.6 | 15.3 | 3.4 | 6.8 | 59 |
| NST | 28.7 | 30.7 | 25.7 | 14.9 | 101 |
| Total | 57.5 | 22.1 | 10.5 | 9.9 | 362 |

2. Layout

Overall, 40 per cent of all teachers liked their layout "a lot". NST teachers were below average and open space teachers slightly above average. Although roughly a quarter of open space teachers disliked their layouts, only a tenth of them were neutral about it. The opposite was true in NST schools where 15 per cent disliked the layout and nearly twice as many (28 per cent) were neutral. Layout apparently assumed more importance in an open plan school.

There was a marked tendency for teachers in small schools to like the layout of their school compared to those in larger schools. Also, more regular classroom teachers who asked to teach in the school liked the layout, compared to those who did not ask to teach in the school.

Table 58: Teacher Satisfaction with Layout of the School Across Types of Schools

| Type of School | Teacher Satisfaction with Layout: Like a Lot % | Like a Little % | Neutral % | Dislike % | N |
|---|---|---|---|---|---|
| SEF | 41.4 | 20.2 | 9.4 | 29.1 | 203 |
| NSO | 44.1 | 20.3 | 11.9 | 23.7 | 59 |
| NST | 32.7 | 24.8 | 27.7 | 14.9 | 101 |
| Total | 39.4 | 21.5 | 14.9 | 24.2 | 363 |

3. Privacy

More than half of all teachers in the sample felt provisions for privacy were inferior. This was true in open and traditional schools, SEF and non-SEF.

A slightly larger proportion of teachers in small schools, and of regular classroom teachers who asked to teach in the school were pleased with the provisions for visual privacy.

4. Satisfaction with Atmosphere (Temperature, Humidity and Ventilation), Acoustics, Lighting, and Roominess

Teachers and principals were asked to rate these items as superior, adequate, or inferior.

Overall, only eight per cent of all teachers rated their schools' atmosphere superior, and over 50 per cent rated it inferior. There were no significant differences among the three types of schools.

Of the remaining three items, SEF had the highest proportion of superior ratings on lighting and acoustics, and an equal proportion of superior ratings on roominess. More teachers in traditional plan schools used the middle category (adequate) than did so in the open space schools.

Table 59: Teacher Satisfaction with Lighting Across Types of Schools

| Type of School | Teacher Satisfaction with Lighting: High % | Medium % | Low % | N |
|---|---|---|---|---|
| SEF | 50.5 | 41.5 | 8.0 | 200 |
| NSO | 25.4 | 71.2 | 3.4 | 59 |
| NST | 16.3 | 78.6 | 5.1 | 98 |
| Total | 37.0 | 56.6 | 6.4 | 357 |

Satisfaction with lighting was generally high. Half the teachers in SEF schools rated their schools' lighting as superior. This was twice the proportion that gave this rating in NSO schools, and three times the proportion of NST schools. Less than a tenth of all teachers rated the lighting inferior.

One-fifth of all teachers rated the acoustics of their school as superior; one-quarter of SEF teachers, about one sixth of NSO teachers, and one-tenth of NST teachers were highly satisfied. Almost a quarter of all teachers rated the acoustics inferior.

Table 60: Teacher Satisfaction with Acoustics Across Types of Schools

| Type of School | Teacher Satisfaction with Acoustics: High % | Medium % | Low % | N |
|---|---|---|---|---|
| SEF | 24.7 | 52.0 | 23.2 | 198 |
| NSO | 16.9 | 61.0 | 22.0 | 59 |
| NST | 9.8 | 66.3 | 23.9 | 92 |
| Total | 19.5 | 57.3 | 23.2 | 349 |

Floor area was an important environmental quality to a great number of teachers. Although approximately one-fifth of teachers in each type of school rated the roominess of the whole school as superior, the remainder were not equally satisfied. Twice as many teachers (44 per cent) in NSO schools judged the roominess of their school inferior, compared to about 15 per cent of teachers in NST schools and 20 per cent of the teachers in SEF schools.

These results regarding roominess were closely related to the level of occupancy of the school. Twice the proportion of teachers in schools which were at or above occupancy, rated the roominess inferior.

For a discussion of the comparison between teachers' answers for the roominess of the whole school and for their own teaching area, see pages 73-74.

Table 61: Teacher Satisfaction with Roominess Across Types of Schools

| Type of School | Teacher Satisfaction with Roominess High % | Medium % | Low % | N |
|---|---|---|---|---|
| SEF | 21.2 | 58.5 | 20.2 | 193 |
| NSO | 18.6 | 37.3 | 44.1 | 59 |
| NST | 23.2 | 62.1 | 14.7 | 95 |
| Total | 21.3 | 55.9 | 22.8 | 347 |

The answers from the preceding four questions on environmental characteristics were summed and then divided into three categories, high, medium and low, to make an overall scale of adequacy. About one-third of SEF teachers, compared to about one-fifth of non-SEF teachers rated the above items in the high adequacy category. Well over half the NST teachers rated them in the middle level, reflecting the tendency of traditional plan teachers to cluster their responses in the "adequate" category rather than in the superior or inferior ones. More than a third of NSO teachers used the low adequacy category compared to about a quarter of NST and SEF teachers. The general environmental quality of the SEF schools was perceived and acknowledged by the people who worked in them.

Table 62: Environmental Adequacy Scale for Atmosphere, Lighting, Acoustics and Roominess for Teachers and Principals Across Types of Schools

| Type of School | Environmental Adequacy Scale High % | Medium % | Low % | N |
|---|---|---|---|---|
| SEF | 35.2 | 38.9 | 25.9 | 193 |
| NSO | 22.0 | 42.4 | 35.6 | 59 |
| NST | 20.0 | 57.9 | 22.1 | 95 |
| Total | 28.8 | 44.7 | 26.5 | 347 |

5. Fountains/Bubblers

Over two-thirds of all teachers rated drinking fountains as adequate, about one-quarter rated them inferior and the remainder rated them superior. There were no significant differences between the three types of schools.

## 6. Telephones

On the average, 10 per cent of all teachers rated outside telephones superior, half rated them adequate, and the remainder inferior. More SEF teachers than non-SEF teachers rated them superior. However, a third of SEF teachers rated them inferior, compared to a fifth of NSO teachers, and over half of NST teachers. Apparently, many teachers would like more outside lines or handsets.

There was more satisfaction with inside telephones than outside ones for all teachers, but SEF teachers overwhelmingly rated theirs superior--63 per cent compared to 17 per cent for NSO teachers and 8.3 per cent for NST teachers.

Table 63: Teacher Satisfaction with Outside Telephones Across Types of Schools

| Type of School | Teacher Satisfaction with Outside Telephones | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 12.2 | 52.4 | 35.4 | 189 |
| NSO | 7.8 | 70.6 | 21.6 | 51 |
| NST | 4.9 | 42.7 | 52.4 | 82 |
| Total | 9.6 | 52.8 | 37.6 | 322 |

Table 64: Teacher Satisfaction with Inside Telephones Across Types of Schools

| Type of School | Teacher Satisfaction with Inside Telephones | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 63.0 | 33.5 | 3.5 | 200 |
| NSO | 17.0 | 66.0 | 17.0 | 53 |
| NST | 8.3 | 63.1 | 28.6 | 84 |
| Total | 42.1 | 46.0 | 11.9 | 337 |

## Specialized Areas of the School

### 1. Library/Resource Centre

Two-thirds of both SEF and NSO teachers liked the library/resource centre "a lot", compared to a quarter of the NST teachers. The older, smaller libraries in NST schools were disliked by nearly a third of their teachers, compared to about one-tenth of the teachers in open space schools who disliked theirs.

Table 65: Teacher Satisfaction with Library/Resource Centre Across Types of Schools

| Type of School | Teacher Satisfaction with Library/Resource Centre | | | | |
|---|---|---|---|---|---|
| | Like a Lot % | Like a Little % | Neutral % | Dislike % | N |
| SEF | 65.8 | 15.8 | 6.4 | 11.9 | 202 |
| NSO | 69.5 | 18.6 | 3.4 | 8.5 | 59 |
| NST | 24.8 | 27.7 | 17.8 | 29.7 | 101 |
| Total | 55.0 | 19.6 | 9.1 | 16.3 | 362 |

2. Gymnasium

In terms of satisfaction with the gym, there were wide differences between the newer schools and the older NST schools. Three quarters of the SEF teachers and over half the NSO teachers liked the gym "a lot", compared to less than a fifth of NST teachers. A third of NST teachers liked their gym "a little" and another third were neutral. This is three to four times as large as the proportion of open space teachers who were less than satisfied. Only a small proportion (four per cent) of SEF teachers disliked the gym; four times as many NST teachers, and seven times as many NSO teachers disliked it.

Table 66: Teacher Satisfaction with Gymnasium Across Types of Schools

| Type of School | Teacher Satisfaction with Gym | | | | |
|---|---|---|---|---|---|
| | Like a Lot % | Like a Little % | Neutral % | Dislike % | N |
| SEF | 76.7 | 12.4 | 6.9 | 4.0 | 202 |
| NSO | 55.9 | 10.2 | 3.4 | 30.5 | 59 |
| NST | 18.8 | 30.7 | 33.7 | 16.8 | 101 |
| Total | 57.2 | 17.1 | 13.8 | 11.9 | 362 |

3. Music Room

All SEF schools had music rooms. NSO schools used a variety of seminars, enclosed classrooms, and open space for their music. No NST schools had a designated music room. Comparison among the types of schools was therefore impossible.

Over a third of SEF teachers liked the music room "a lot", more than a quarter liked it "a little", a quarter were neutral, and about one-tenth disliked it.

4. Teacher Preparation Rooms

More than half of all teachers said their teacher preparation rooms were adequate, a quarter judged them inferior, and the remaining fifth rated them superior. The

teacher preparation rooms were no more or less likely to be rated superior in the open plan schools than in the traditional plan schools.

5. Playground

Roughly a third of all teachers in each type of school rated the amount of their playground space "adequate". The divergencies between types occurred at both ends of the scale. More than half the SEF teachers, a third of NSO teachers, and a quarter of NST teachers rated amount of playground space as superior. Whereas only eight per cent of SEF teachers rated it inferior, three times as many NSO teachers (23 per cent), and five times as many NST teachers (42 per cent) rated it inferior.

Teachers in all three types of schools were three times as likely to rate the amount of playground space superior compared to playground facilities. Overall, 16 per cent rated the facilities superior and 41 per cent rated them inferior. SEF was rated above average and NSO and NST were rated below average in satisfaction with playground facilities.

Table 67: Teacher Satisfaction with Playground Space Across Types of Schools

| | Teacher Satisfaction with Playground Space | | | |
|---|---|---|---|---|
| Type of School | High % | Medium % | Low % | N |
| SEF | 57.1 | 35.4 | 7.6 | 198 |
| NSO | 35.1 | 42.1 | 22.8 | 57 |
| NST | 24.5 | 33.7 | 41.8 | 98 |
| Total | 44.5 | 36.0 | 19.5 | 353 |

Table 68: Teacher Satisfaction with Playground Facilities Across Types of Schools

| | Teacher Satisfaction with Playground Facilities | | | |
|---|---|---|---|---|
| Type of School | High % | Medium % | Low % | N |
| SEF | 21.1 | 46.9 | 32.0 | 194 |
| NSO | 12.7 | 40.0 | 47.3 | 55 |
| NST | 8.2 | 36.1 | 55.7 | 97 |
| Total | 16.2 | 42.8 | 41.0 | 346 |

6. Washrooms

Less than 10 per cent of all teachers rated washrooms in the school superior, half rated them adequate and about 40 per cent inferior. NSO washrooms were rated

superior by 15 per cent of NSO teachers, twice the proportion of SEF or NST teachers. Over 40 per cent of the SEF and NST teachers were dissatisfied with the washrooms, compared to a tenth of the teachers in NSO schools.

Table 69: Teacher Satisfaction with Washrooms Across Types of Schools

| Type of School | Teacher Satisfaction with Washrooms | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 8.0 | 44.7 | 47.2 | 199 |
| NSO | 15.3 | 74.6 | 10.2 | 59 |
| NST | 7.0 | 52.0 | 41.2 | 100 |
| Total | 8.9 | 51.7 | 39.4 | 358 |

Teaching Areas/Classrooms (Excludes Principals and Vice Principals)

Teachers who had more than one area were asked to rate the one in which they spent the most time. Overall, nearly three-quarters of all teachers liked their teaching areas or classrooms, but only two-thirds of NSO teachers liked theirs. Half the SEF teachers liked them "a lot", compared to 44 per cent of NSO and 42 per cent of NST.

More NSO teachers disliked their teaching areas or classrooms than either SEF or NST teachers.

Table 70: Teacher Satisfaction with Teaching Area/Classroom Across Types of Schools

| Type of School | Satisfaction with Teaching Area/Classrooms | | | | |
|---|---|---|---|---|---|
| | Like a Lot % | Like a Little % | Neutral % | Dislike % | N |
| SEF | 50.0 | 22.8 | 10.4 | 16.8 | 202 |
| NSO | 44.1 | 22.0 | 5.1 | 28.8 | 59 |
| NST | 42.6 | 32.7 | 12.9 | 11.9 | 101 |
| Total | 47.0 | 25.4 | 10.2 | 17.4 | 362 |

1. Acoustics, Lighting, Amount of Floor Area and Location of Teaching Area/Classroom

Teachers rated these environmental characteristics of their teaching area as superior, adequate, or inferior. Here too, teachers in NST schools tended to rate these characteristics "adequate" rather than "superior" or "inferior".

Roughly two-thirds of all teachers found the acoustics of their own teaching area adequate. Almost a fifth found it superior, and another fifth, inferior. Twice as many SEF teachers as non-SEF teachers rated acoustics superior. A quarter of the NSO teachers, a larger proportion than either SEF or NST rated acoustics inferior.

Table 71: Teacher Satisfaction with Acoustics in Teaching Area/Classroom Across Types of Schools

| Type of School | Teacher Satisfaction with Acoustics in Teaching Areas | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 21.4 | 59.4 | 19.3 | 187 |
| NSO | 13.0 | 63.0 | 24.1 | 54 |
| NST | 10.8 | 76.3 | 12.9 | 93 |
| Total | 17.1 | 64.7 | 18.3 | 334 |

A third of all teachers rated classroom lighting superior, over half rated it adequate, and less than 10 per cent rated it inferior. SEF lighting was rated well above average and non-SEF below average. Nearly three times as many SEF teachers (45 per cent) as non-SEF teachers gave the lighting in their classrooms a superior rating.

Table 72: Teacher Satisfaction with Lighting in Teaching Area/Classroom Across Types of Schools

| Type of School | Teacher Satisfaction with Lighting in Teaching Areas | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 45.0 | 46.6 | 8.5 | 189 |
| NSO | 18.5 | 70.4 | 11.1 | 54 |
| NST | 16.1 | 74.5 | 9.6 | 94 |
| Total | 32.6 | 58.2 | 9.2 | 337 |

The location of teaching area/classroom was categorized as superior for a third of the teachers, adequate for half, and inferior for more than a tenth. There were no differences in satisfaction with location of teaching areas between open space and traditional space, or between SEF and non-SEF schools.

Despite the actual differences in amounts of floor area between schools, there were no differences in the level of teacher satisfaction with the amount of floor area. More than a fifth of all teachers rated the floor area of their teaching area as superior, half rated it adequate, and the remainder, inferior. Teachers

with less than 25 students in their area were twice as likely to rate their floor area superior.

An overall scale of adequacy of these four environmental characteristics of teaching areas was developed by scoring and summing the answers for each item, and then dividing the array into three categories.

Table 73: Teachers' Environmental Adequacy Scale for Acoustics, Lighting, Amount of Floor Area, and Location of Teaching Area Across Types of Schools

| Type of School | Scale of Environmental Adequacy for Teaching Area | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 30.9 | 42.0 | 27.1 | 188 |
| NSO | 18.5 | 37.0 | 44.4 | 54 |
| NST | 17.9 | 40.0 | 42.1 | 95 |
| Total | 25.2 | 40.7 | 34.1 | 337 |

A quarter of all teachers gave their class areas a high adequacy rating, 40 per cent, a medium rating, and a third, a low rating. SEF had the highest overall adequacy on these environmental characteristics--30 per cent compared to about 18 percent for non-SEF schools.

Teachers in large schools, followed by teachers in small schools, as well as regular classroom teachers who asked to teach in the school, tended to give their teaching areas a higher overall adequacy rating.

It is interesting to compare teachers' ratings of the whole school and of their own areas. Twice as many teachers in all types of schools were satisfied with the layout of the school in general than they were with the location of their own area. Fewer teachers found the lighting of their own area superior, compared to the number of teachers who found it superior for the whole school. This was generally true of the acoustics as well. There was another twist in ratings of acoustics: a quarter of the NST teachers rated the whole school inferior, twice the number of those who rated their own classroom inferior.

Approximately the same proportion of teachers in all schools were satisfied with the roominess of the whole school as were satisfied with the amount of floor area for their own teaching areas. However, there were slight exceptions. Forty-four per cent of NSO teachers rated the roominess of the whole school inferior,

while only 35 per cent rated the amount of floor area of their teaching space inferior. Fifteen per cent of the teachers in NST schools rated the roominess of the whole school inferior, but twice that proportion found the floor area of their own teaching area inferior. In most cases, teachers have a different perception of the whole school and their own teaching area on these four environmental characteristics.

2. Windows

On the average, half the teachers judged windows to be adequate. A quarter of NSO teachers, roughly twice as many as NST and SEF teachers, rated them superior. SEF's windows were perceived as inferior by 46 per cent of SEF teachers, twice the average of NSO and NST teachers. However 43 per cent of SEF teachers, compared to a tenth of NSO, and a fifth of NST teachers felt that windows were not very important. Nonetheless, windows were very important to one quarter of SEF teachers; this is approximately half the proportion of non-SEF teachers.

Table 74: Teacher Satisfaction with Windows in Teaching Areas Across Types of Schools

| Type of School | Teacher Satisfaction with Windows: High % | Medium % | Low % | N |
|---|---|---|---|---|
| SEF | 8.8 | 44.9 | 46.3 | 147 |
| NSO | 24.0 | 54.0 | 22.0 | 50 |
| NST | 13.8 | 56.4 | 29.8 | 94 |
| Total | 13.1 | 50.2 | 36.8 | 291 |

3. Floor Covering in Teaching Area

The floor covering was rated superior by a third of all teachers, adequate by 45 per cent, and inferior by a fifth of them. The ratings from teachers in SEF schools were well above these averages and those from teachers in NST schools were far below.

Table 75: Teacher Satisfaction with Floor Covering in Teaching Areas Across Types of Schools

| Type of School | Teacher Satisfaction with Floor Covering: High % | Medium % | Low % | N |
|---|---|---|---|---|
| SEF | 47.3 | 40.9 | 11.8 | 186 |
| NSO | 38.9 | 40.7 | 20.4 | 54 |
| NST | 5.4 | 56.5 | 38.0 | 92 |
| Total | 34.3 | 45.2 | 20.5 | 332 |

4. Electrical Outlets in Teaching Area

Nearly half of all teachers judged the provision of electrical outlets to be adequate, another 40 per cent inferior, and less than a tenth superior.

Electrical outlets were considered to be much more adequate in the newer, open plan schools. Even here, a third of the teachers rated them inferior. Nearly twice this proportion were not satisfied in NST schools.

Table 76: Teacher Satisfaction with Provision of Electrical Outlets in Teaching Areas/Classrooms Across Types of Schools

| Type of School | Teacher Satisfaction with Provision of Electrical Outlets | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 10.1 | 52.1 | 37.8 | 188 |
| NSO | 11.1 | 57.4 | 31.5 | 54 |
| NST | 3.2 | 36.8 | 60.0 | 95 |
| Total | 8.3 | 48.7 | 43.0 | 337 |

5. Furniture

A general question about level of satisfaction with the furniture, shelving, and storage units for the individual teacher's method of teaching showed that one-tenth of all teachers were very satisfied, 40 per cent were satisfied, a fifth were neutral, and the remaining 25 per cent were dissatisfied. Despite the wide variation in furniture in each type of school, these proportions did not differ.

a. Cupboards/Storage Containers, Bookshelves, Toteboxes, Chairs/Cushions, Tables/Desks, Screens/Dividers, Display Surfaces, Fixed Sinks, and Chalkboard:--Each of these items were rated in separate questions as superior, adequate or inferior.

There were no differences among types of schools for the toteboxes, and screens or dividers. Less than a tenth of all teachers in each type rated toteboxes and screens superior, but approximately half said they were adequate.

Although there were differences across schools on the other seven items, there were no consistent patterns.

For most items in most schools, the superior rating was used by one-fifth or less of all teachers. The inferior ratings were used much more liberally. Nearly 40 per cent of all teachers gave inferior ratings to cupboards, compared to almost half of NSO teachers. SEF teachers had higher proportions of inferior ratings

on tables and desks and display surfaces. NSO teachers had few complaints about tables and desks or sinks. More NST teachers gave inferior ratings to bookshelves (although they also gave more superior ratings to the same item.)

In all school types, cupboards or storage containers were a problem. As may be expected, in open space schools, chalkboard and display surfaces were a problem. Overall, half or more of all the teachers in each type judged chalkboard fixed sinks, chairs, tables and desks as "adequate."

6. Atmospheric Conditions

Roughly a quarter of all teachers' classrooms were "often too warm," half were "sometimes too warm," and another quarter "never too warm." The proportions were approximately the same for cold classrooms. Despite these apparent similarities, there were differences between types of schools. There was more satisfaction with warmth in the SEF schools and less satisfaction with cold. More than a quarter of SEF teaching areas were rated "never too warm." This is twice the proportion found in non-SEF teaching areas. However, a third of SEF teaching areas were "often too cold" for teachers; nearly three times as many as non-SEF teaching areas. Many students did not share their teachers' opinions about temperature.

Table 77: Satisfaction with Temperature in Teaching Area/Classroom Across Types of Schools as Reported by Teachers

| Type of School | Often | Sometimes | Never | N |
|---|---|---|---|---|
| | Too Warm - Frequency | | | |
| | % | % | % | |
| SEF | 22.3 | 48.9 | 28.7 | 188 |
| NSO | 27.8 | 53.7 | 18.5 | 54 |
| NST | 25.5 | 61.7 | 12.8 | 94 |
| Total | 24.1 | 53.3 | 22.6 | 336 |
| | Too Cold - Frequency | | | |
| SEF | 30.3 | 52.1 | 17.6 | 188 |
| NSO | 13.0 | 53.7 | 33.3 | 54 |
| NST | 11.7 | 50.0 | 38.3 | 94 |
| Total | 22.3 | 51.8 | 25.9 | 336 |

7. Noise

Two-thirds of all teachers found their areas noisy sometimes. A quarter of open space teachers, that is, six times as many open plan teachers as traditional plan teachers found their areas "often too noisy". On the other hand, a quarter of NST teachers perceived their classrooms as "never too noisy"; this is twice the proportion of open plan teachers. The results from the student data were somewhat at odds with that reported here for teachers.

Table 78: Satisfaction with Noise in Teaching Area/Classroom Across Types of Schools as Reported by Teachers

| Type of School | Too Noisy - Frequency | | | |
|---|---|---|---|---|
| | Often % | Sometimes % | Never % | N |
| SEF | 23.3 | 65.1 | 11.6 | 189 |
| NSO | 24.1 | 63.0 | 13.0 | 54 |
| NST | 4.2 | 71.6 | 24.2 | 95 |
| Total | 18.0 | 66.6 | 15.4 | 338 |

Satisfaction of Principals

The principals in our study tended to have stronger opinions, both positive and negative, than regular classroom teachers. A much smaller percentage remained neutral for all the satisfaction variables we measured. They both liked and disliked the exterior appearance more than the total sample. No principals were neutral or negative about interior appearance. More than half the principals liked the layout, none were neutral about it. Twice as many principals as teachers stated that provision for privacy was superior. On the environmental scale of adequacy for roominess, acoustics, lighting and atmosphere of the whole school, they gave ratings which were twice as high and twice as low as found in the total sample.

## CHAPTER 9

## SATISFACTION - PARENTS AND NEIGHBORS

This Chapter deals with parents' and neighbors' satisfaction with school in terms of its educational function and as a physical plant.

### School as an Educational Institution

"Change" in schools, adequacy of information concerning the school program, and what the parents and neighbors would like to tell the school board if given the opportunity are discussed below.

#### 1. Change in Schools

Parents and neighbors were first asked, "How much change is needed in your local school?" Only half of the respondents replied (N = 299) and most of these were parents. However, the answers of the parents did not differ from those of the neighbors who answered. Three-quarters of those who answered saw little or no need for change in their local school. Few people felt that they could do much to bring about change in the school, although parents were more optimistic than neighbors.

Secondly, parents and neighbors were asked, "How much change can you bring about in your local school?" About a quarter of the parents believed they could bring about some change in their school. This was about the same proportion that believed some change was needed. On the whole, more people thought they should be able to bring about change than believed they could actually have an effect.

Table 79: Amount of Change Perceived Possible by Parents and Neighbors

| Amt. of Change | Parents | Neighbors | Both |
|---|---|---|---|
| | % | % | % |
| Quite a bit, some | 24.7 | 13.0 | 20.1 |
| Little or none | 75.3 | 87.0 | 79.9 |
| N | (223) | (146) | (369) |

Finally, we also asked the parents and neighbors, "How much change should you be able to bring about in your local school?" Half the respondents indicated that they believed they should be able to bring about change in their school, a quarter thought some change was needed, and a fifth thought they could bring about some change. Neighbors were much more uncertain about these questions than were parents; three-quarters said they "didn't know" whether change was needed, half "didn't know" whether they could bring about change and a third "didn't know" whether they should be able to bring about change.

Table 80: Amount of Change Perceived Desirable by Parents and Neighbors

| Amt. of Change | Parents % | Neighbours % | Both % |
|---|---|---|---|
| Quite a bit, some | 54.1 | 41.5 | 48.5 |
| Little or none | 45.9 | 58.5 | 51.5 |
| N | (246) | (193) | (439) |

2. Adequacy of Information on School Program

The parents and neighbors were asked, "Do you think you get enough information about the school program?" Most respondents felt that they received enough information. The proportion was higher for parents than for neighbors. About one-third of the neighbors claimed they did not get enough information about the school program, while 14 per cent of the parents made such a claim.

3. Parents' and Neighbors' Comments to Tell School Board

When asked what they would like communicated to the school board on their behalf, about half of the respondences had comments. These are set forth in the following table.

Table 81: What one thing would you like us to tell the school board for you?

| | Parents % | Neighbors % | Both % |
|---|---|---|---|
| 1. Pleased (I like the system, you are doing a good job, good luck) | 32.4 | 20.2 | 27.7 |
| 2. Taxes (extravagance, frills, high administration costs) | 10.4 | 26.6 | 16.7 |
| 3. Extend program (community use, junior kindergarten, day care) | 20.8 | 20.2 | 20.6 |
| 4. Extend facilities (improve equipment, playground, appearances, etc.) | 5.8 | 10.1 | 7.4 |
| 5. Return to tradition (report cards, homework, more discipline, less freedom) | 22.5 | 16.5 | 20.2 |
| 6. Improve communication (want more information, more meetings) | 8.1 | 6.4 | 7.4 |
| N | (173) | (109) | (282) |

One-third of the parents and one-fifth of neighbors who commented indicated that they were pleased with the existing operation. They made a variety of positive statements about the schools and how they were being operated. One-quarter of the neighbors and one-tenth of the parents expressed dissatisfaction about taxes or about how their tax dollars were being spent. Parents were not only more pleased than neighbors with the school operation, but were generally more convinced that they were getting value for their taxes. The people without children in school were more concerned about educational expenditures.

Neighbors and parents did not differ in the proportion of those who wished to have school programs extended. One-fifth of the people who answered asked for additional or extended services such as junior kindergartens, day care, adult classes, recreation programs and drop-in centres for senior citizens. On the whole, more people asked to have services extended than asked to have taxes reduced or tax monies spent differently.

Less than a tenth of the respondents suggested that facilities be improved or extended. This was a concern of more neighbors than parents. A number of the neighbors who wanted facilities extended were concerned about adult recreational facilities.

A considerable proportion, about a fifth of the respondents, were not pleased with modern educational styles. They suggested a return to the "three R's" and the methods of teaching associated with "school as we knew it when we attended". This suggestion was made by a slightly higher proportion of parents than neighbors.

A relatively small number of people, about seven per cent, asked for more information. Some of these were requests for information in languages other than English.

On the whole, the school system as it now operates seemed to please many people. However, almost as many people would have it: extend its program or services; lower taxes; and return to more traditional educational methods. A few people would have facilities extended and communications improved. The main source of dissatisfaction with taxes was with neighbors, whereas the locus of general satisfaction was with the parents whose children are now being served by the school system.

Satisfaction with School Facility

This second section is concerned with the appearance of the school and the adequacy of the equipment for children's and adult's activities, from the parents' and neighbors' viewpoint.

1. Satisfaction of Parents and Neighbors with School's Appearance

Parents and neighbors differed from each other on liking the appearance of a school building. (See Tables 82,83.) As may be predicted, parents tended to like the outside and the inside appearance more than did neighbors, and in general, neighbors had a more neutral stance toward school buildings than did parents.

Table 82: Satisfaction With Outside Appearance By Neighbors and Parents Across Types of Schools

| | Satisfaction With Outside Appearance | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Like More Than Other Schools | | | Like Same As Other Schools | | | Like Less Than Other Schools/Not At All | | |
| | Parents % | Neighbors % | Both % | Parents % | Neighbors % | Both % | Parents % | Neighbors % | Both % |
| SEF | 44.9 | 39.3 | 42.3 | 35.5 | 34.4 | 35.0 | 19.6 | 26.2 | 22.7 |
| NSO | 65.3 | 55.2 | 60.8 | 26.4 | 39.7 | 32.3 | 8.3 | 5.2 | 6.9 |
| NST | 11.6 | 5.1 | 8.6 | 63.8 | 78.0 | 70.3 | 24.6 | 16.9 | 21.1 |
| N | (117) | (83) | (200) | (112) | (111) | (223) | (50) | (45) | (95) |

Table 83: Satisfaction With Inside Appearance By Neighbors and Parents Across Types of Schools

| | Satisfaction With Inside Appearance | | | | | |
|---|---|---|---|---|---|---|
| | Like More Than Other Schools | | | Like Same as or Less Than Other Schools | | |
| | Parents % | Neighbors % | Both % | Parents % | Neighbors % | Both % |
| SEF | 83.2 | 85.7 | 83.7 | 16.8 | 14.3 | 16.3 |
| NSO | 84.8 | 63.0 | 78.5 | 15.2 | 37.0 | 21.5 |
| NST | 15.8 | 0.00 | 13.2 | 84.2 | 100.0 | 86.8 |
| N | (164) | (41) | (205) | (78) | (25) | (103) |

The neutral attitude was overwhelmingly true of the older, traditional plan schools. New schools evoked an opinion on appearance from neighbors and parents. A very high proportion of SEF and NSO, and a very low proportion of NST parents and neighbors liked the appearance of their schools.

SEF neighbors and parents were different from those from NSO and NST schools on

liking the appearance of schools. Approximately the same small percentage of SEF neighbors and parents were neutral toward both the inside and outside. However, SEF neighbors liked the inside appearance slightly more than did the parents. This was one of the rare instances when neighbors showed a preference over the parents.

The rank order for liking the outside appearance was: NSO - 61 per cent; SEF - 42 per cent; and NST - 9 per cent; and for the inside appearance: SEF - 84 per cent; NSO - 78 per cent; and NST - 13 per cent. The disparity between liking the outside and liking the inside was much greater for SEF schools. As with SEF students and SEF teachers, twice as many people liked the inside as liked the outside.

2. The Effect of Types of Accommodation on Attitudes Toward School's Appearance

Neighbors and parents in various types of accommodation had different reactions to the appearance of their local school building. Type of accommodation had no significant effect on their response to the inside appearance, but on the outside appearance (Table 84), nearly half the parents in single family dwellings and apartments liked the appearance of their local school more than other schools, but less than a third of those living in duplexes or row housing liked it.

Table 84: Satisfaction with Outside Appearance of School by Parents and Neighbors Compared by Type of Accommodation

| | Satisfaction With Outside Appearance | | | | | |
|---|---|---|---|---|---|---|
| | Like More Than Other Schools | | Like Same As Other Schools | | Like Less Than Other Schools/Not at all | |
| | Both % | Parents % | Both % | Parents % | Both % | Parents % |
| Type of Accommodation | | | | | | |
| Single family dwelling | 43.2 | 47.0 | 39.0 | 36.4 | 17.8 | 16.7 |
| Duplex or triplex or row housing | 30.8 | 30.9 | 46.2 | 41.5 | 23.1 | 27.7 |
| Apartments | 42.5 | 49.0 | 46.0 | 46.9 | 11.5 | 4.1 |
| N | (197) | (115) | (218) | (110) | (95) | (50) |

3. Other Effects

We also felt that the number of years people lived in a neighborhood, the frequency with which they passed the school and visited the local school as well as visiting other schools would make a difference to their opinions. Our results showed that the longer people had lived in a neighborhood, the less they liked both the

outside and inside appearance of their school. Perhaps, the longer they lived in one place, the fewer schools they had to compare with the present school. Certainly, in all cases, passing the school frequently and visiting the local school or other schools frequently increased the likelihood of parents and neighbors liking the appearance.

Adequacy of Equipment for Children and Adults

Well over half of the respondents reported that their school was better equipped for children's programs than were other schools they knew. Only 15 per cent of those who answered (231) indicated that any additional equipment was needed for the children.

Half of the respondents who answered (N = 203) reported that their school was equipped as well as other schools for adult use; a quarter each judged their school to be better and worse in this regard.

One-third of those who answered (N = 187) indicated that additional furniture or equipment was needed to make their school more satisfactory for adult use. Many of the suggestions concerned sports equipment or showers.

## CHAPTER 10

## COMPARATIVE SATISFACTION: ACTUAL VS. IDEAL

The results set forth in the foregoing chapters concerned the satisfaction of users with their facility relative to other facilities, or in terms of its adequacy. While it is informative to discover how one environment compares to other environments, it is also in order to contrast a user's perception of his actual environment with his ideal. Furthermore, it is appropriate to investigate a whole set of environmental characteristics together rather than singly. The instrument devised to accomplish this was quite simple. Ten significant characteristics of school environments were identified and teachers were selected as the particular group of users to be questioned. The characteristics were:

1. visual privacy;
2. noise control;
3. generous amount of floor area;
4. generous outdoor play area;
5. convenient layout;
6. attractive appearance;
7. abundant, versatile storage;
8. plenty of electrical outlets;
9. comfortable temperature, humidity and ventilation;
10. sturdy relocatable furniture

The teachers were first asked to rate the importance of each characteristic in their conception of an "ideal" school. The rating device required that only one characteristic be specified as most important and as least important, two characteristics as next most and next least important, and that the remaining four characteristics remain as a middle category. The second task required of the teachers was to use the same 10 characteristics to describe the school building in which they worked. The characteristics were rated in the same 1,2,4,2,1 configuration from the most adequate to the least adequate feature in the school.

The data obtained from this instrument indicated the relative importance of specific characteristics of an ideal school for various categories of teachers. As well, it enabled us to compare teachers' perceptions of their actual environment to their ideal by both types of school, and individual characteristics.

## The Ideal School Building

The results discussed here represent the combined answers of all those surveyed (N = 363), irrespective of the type of school in which they taught. Chart 1 contains the distribution of importance ratings for each characteristic. About a quarter of the respondents gave the rating of "most important" to each of three characteristics: floor area, layout, and noise control. More than a tenth indicated that a comfortable thermal atmosphere was most important to their ideal school although one-third gave it second place.

One-third of the respondents assigned visual privacy to the position of "least important", while another fifth placed each of electrical outlets and attractive appearance in that position.

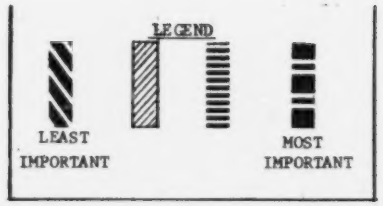
Approximately half the respondents assigned each of the remaining three characteristics--storage, outdoor area, and furniture--to the middle category of importance.

## Comparison of Ideal and Actual Environments

Whether or not a characteristic is important in the abstract does not establish whether or not it is a problem for many people. The degree to which teachers on the whole were satisfied with particular characteristics of their environment can be inferred from the data in Chart 2. For each set of three bars (for each characteristic), the left bar represents the proportion of respondents who gave that characteristic a lower rating for their actual than for their ideal; the middle bar represents the proportion who rated the characteristic at the same level in their actual as in their ideal; and the right hand bar represents those who rated the characteristic higher in their actual school than in their ideal.

Almost two-thirds of the respondents felt that the atmospheric conditions in their buildings were less than ideal. Half indicated a concern with noise control. More than a third of the respondents rated floor area, layout and storage as less than ideal, while a fifth gave this answer concerning visual privacy, electrical outlets, and furniture.

CHART #1 - DISTRIBUTIONS OF IMPORTANCE RATINGS FOR IDEAL SCHOOL BY SPECIFIC CHARACTERISTIC



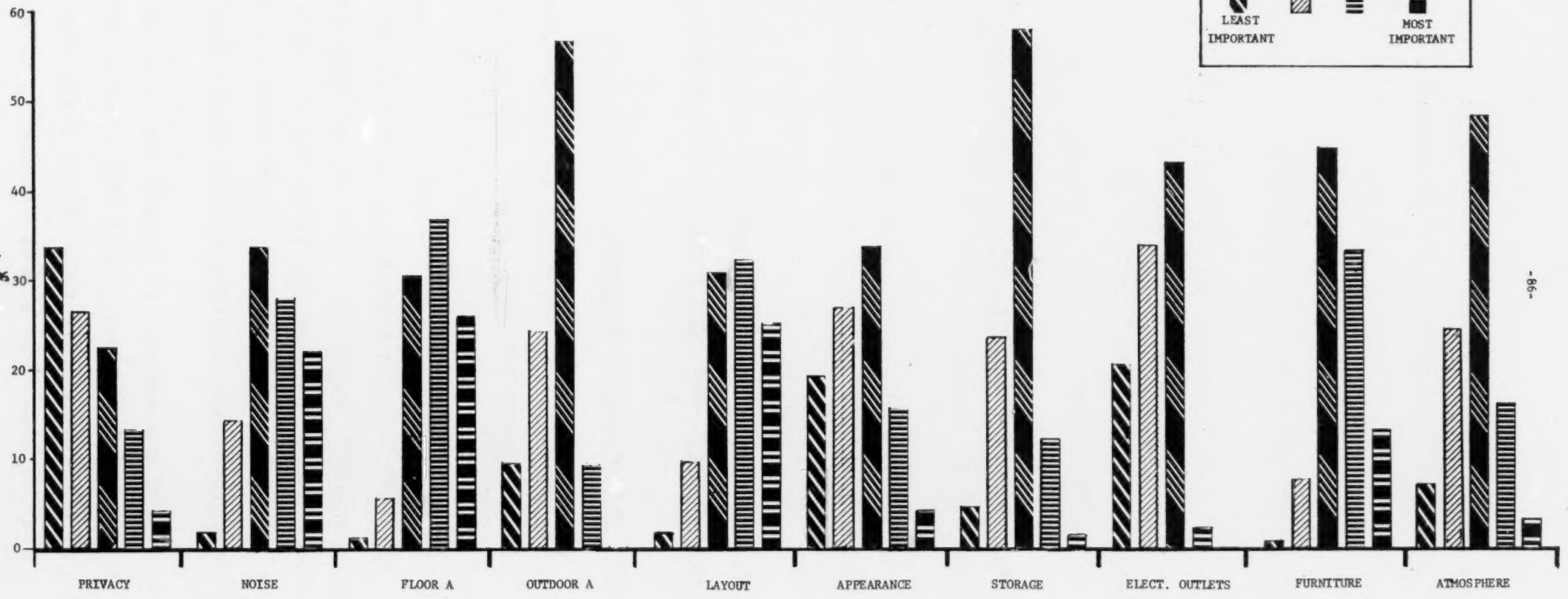
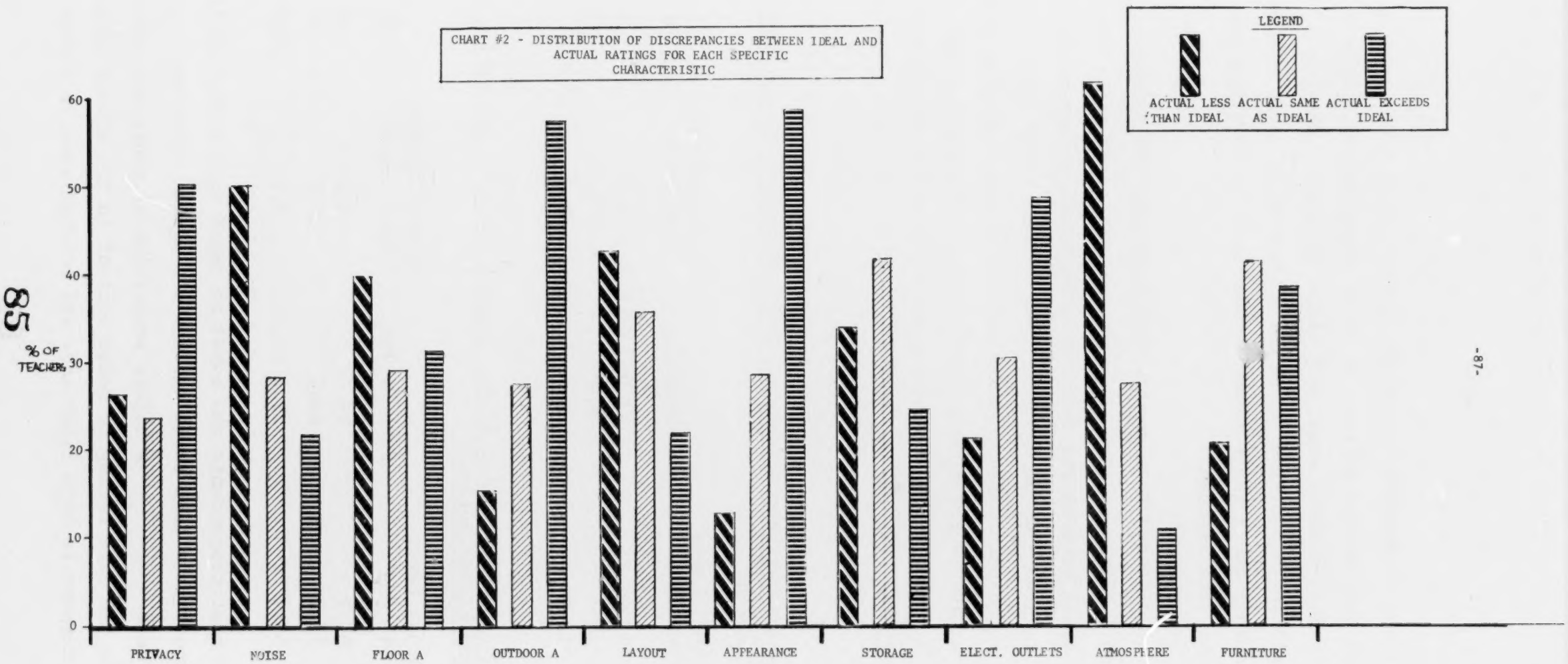




FIG 8

CHART #2 - DISTRIBUTION OF DISCREPANCIES BETWEEN IDEAL AND ACTUAL RATINGS FOR EACH SPECIFIC CHARACTERISTIC



However, about half the respondents rated the provision of electrical outlets higher in the school they worked in than in their ideal school. This was also the case with appearance, outdoor area, and visual privacy. Roughly a third of the teachers and principals surveyed rated the provision of floor area and furniture in their own school above their ideal. About a fifth felt the same about noise control, layout, and storage.

While the respondents differed from one another regarding the relative importance of many items, these differences were not mere reflections of other factors. No relationships were found between the years of experience, number of degrees, innovativeness of teachers and the discrepancies between their ideal school building and the one in which they worked. With respect to age, a higher proportion of respondents under 30 rated their actual school higher than their ideal than did respondents over 30. However, a higher proportion of the under 30 respondents rated the atmospheric condition of their own buildings lower than their ideal than did those who were over 30 years old.

Table 85: Age of Respondent and Actual vs. Ideal Difference Concerning Appearance of the Building

| Age | Actual Lower Than Ideal % | Same Rating % | Actual Higher Than Ideal % | N |
|---|---|---|---|---|
| Under 30 | 13.4 | 21.0 | 65.6 | 186 |
| 30 and over | 11.7 | 40.0 | 48.3 | 60 |
| Total | 13.0 | 25.6 | 61.4 | 246 |

Table 86: Age of Respondent and Actual vs. Ideal Difference Concerning Atmospheric Conditions of the Building

| Age | Actual Lower Than Ideal % | Same Rating % | Actual Higher Than Ideal % | N |
|---|---|---|---|---|
| Under 30 | 64.7 | 25.7 | 9.6 | 187 |
| 30 and over | 48.3 | 41.7 | 10.0 | 60 |
| Total | 60.7 | 29.6 | 9.7 | 247 |

It might be assumed that respondents who asked to teach in a school would rate the building more positively than those who had not asked. This was checked and found to be seldom true. A higher proportion of those who asked to teach in their school gave the same rating to noise control in the actual school as in their ideal. With respect to both floor area and outdoor area, a higher proportion

of those who asked to teach in their school rated the characteristics higher than in their ideal. The opposite was the case with storage and furniture; here, a higher proportion of those who did not ask to teach in that particular school rated these characteristics higher than in their ideal.

Because we know that a much higher proportion of teachers asked to teach in SEF schools than asked to teach in non-SEF schools, these results could be due to differences between people or differences between environments, or to both together.

Table 87: Importance of Noise Control to Teachers in an Ideal School Across Types of School

| School Type | Least Importance % | Moderate Importance % | Most Importance % | N |
|---|---|---|---|---|
| SEF | 12.6 | 35.4 | 51.9 | 206 |
| NSO | 19.0 | 22.4 | 58.6 | 58 |
| NST | 22.0 | 37.0 | 41.0 | 100 |
| Total | 16.2 | 33.8 | 50.0 | 364 |

Table 88: Importance of Storage to Teachers in an Ideal School Across Types of School

| School Type | Least Importance % | Moderate Importance % | Most Importance % | N |
|---|---|---|---|---|
| SEF | 33.8 | 55.9 | 10.3 | 204 |
| NSO | 24.1 | 65.5 | 10.3 | 58 |
| NST | 20.0 | 58.0 | 22.0 | 100 |
| Total | 28.5 | 58.0 | 13.6 | 362 |

Comparison of Ideal and Actual by School Type

Except for noise control and storage, teachers in different types of schools did not differ in the importance they assigned to particular characteristics in their ideal school. Teachers in traditional plan schools assigned less importance to noise and more importance to abundant, versatile storage than did their counterparts in open plan schools. (Tables 86 and 87)

The responses of teachers regarding the adequacy of various characteristics are presented in Charts 1 through 10 of Appendix II. These charts display the results regarding the importance of each characteristic of the ideal school as well as the adequacy of that characteristic in each type of actual school according to the judgments of the respondents. Only the highlights from these charts are set forth in this text.

Although most teachers did not assign much importance to visual privacy, it was rated as the most adequate characteristic by a third of the teachers in traditional plan schools. It seemed clear that the degree of visual privacy available in open plan schools was sufficient for the majority of teachers.

Noise control was highly valued by most teachers in their ideal school. More teachers in open plan schools rated noise control as less adequate than those in traditional plan schools. Noise control did not seem to be as great a problem in traditional plan schools, although it was still rated as the least adequate characteristic by a small percentage of teachers in those schools.

The pattern of adequacy of floor area approximated the ideal pattern fairly closely both for SEF and traditional plan schools. The low rating given by many teachers in NSO schools may reflect a deficiency of common areas or buffer space in several of these buildings.

Relative to the other characteristics, outdoor area was not given much importance by teachers. However, many respondents in all types of schools indicated that the amount of outdoor area at their school was quite adequate. Fully a quarter of the teachers in SEF schools rated outdoor area as the most adequate of all 10 characteristics.

Many teachers assigned a great deal of importance to convenient layout. There were no significant differences between types of school in the proportion of teachers who rated layout most or least adequate.

Attractive appearance was another characteristic to which a majority of respondents assigned relatively little importance. Nevertheless, a large proportion gave a high adequacy rating to the appearance of their own building. Almost half of the respondents from NSO schools indicated that appearance was the most adequate feature of their building. More than half the respondents from NST schools assigned appearance to the middle category. It appears that in new schools teachers liked the appearance of their buildings better than did teachers in old schools, and more NSO teachers than SEF teachers liked the appearance of their school.

Very few respondents gave either a great deal or very little importance to storage. Over half assigned it to the middle category. There were no differences among respondents from different types of schools in rating the adequacy of storage in

their schools. The overall pattern approximated that of the ideal.

Electrical outlets were important to very few teachers. However, in the traditional plan schools, a relatively high proportion of teachers--a fifth--indicated that the provision of electrical outlets was the least adequate characteristic of their school and another one-third rated it as next least adequate.

Teachers in the different types of schools did not differ in their ratings on the adequacy of atmospheric conditions in their schools. There was a major discrepancy between the pattern of the adequacy ratings and the pattern of importance. Few teachers minimized the importance of atmosphere. A majority gave a low adequacy and high importance rating to the atmosphere in their own building.

More teachers gave furniture a low importance rating than a high rating, and about half placed it in the middle category. A considerably higher proportion of teachers in non-SEF schools gave high adequacy ratings to their furniture than did so in SEF schools. While a third of the SEF teachers gave low adequacy ratings to the furniture, about a fifth gave it high ratings. Half used the middle category, the same proportion as in other types of schools.

Summary

Not all characteristics of school environments were equally important. When asked to choose, most of the 363 teachers and principals questioned gave greatest importance to floor area, layout, noise control and atmospheric conditions; less importance to outdoor area, storage and furniture; and least importance to appearance, electrical outlets, and visual privacy. This should not be interpreted as meaning that these features were unimportant in an absolute sense. They indicated only that there was a high degree of consensus among teachers as to which environmental characteristics were highly valued and which would be "traded off" most readily.

On the whole, across all types of schools, the greatest problems were in atmospheric conditions and noise control; the next greatest problems were in layout, floor area, and storage. By comparison, the problems in outdoor area, appearance, visual privacy, electrical outlets, and furniture affected relatively few people. Again, this cannot be interpreted as if there were no problems or dissatisfactions with matters, but only that they affected a small proportion of teachers.

All types of schools had problems with atmospheric control. Open plan schools had a problem of noise control, whereas traditional plan schools seemed to be relatively short of storage space. There was some problem with respect to furniture in SEF schools and with sufficiency of floor area in NSO schools.

## SUMMARY: SATISFACTION - ALL USERS

Teachers and students were asked general questions about how much they liked various aspects of the school building and more specific questions about their own teaching areas or classrooms. The neighbor and parent questionnaire had a few similar questions. In most cases, a neutral answer was allowed. Wherever the data was comparable, it is discussed.

In general, more students than teachers or neighbors and parents were satisfied with most aspects of the school building. Nonetheless, there were differences in response between students in open plan and those in traditional plan schools, and between students in the two types of open plan schools.

Teachers' answers to the satisfaction questions tended to be more dispersed than students' answers, and there were wider ranges of differences. More teachers in NST schools used a middle category ("neutral" or "adequate") than did the teachers in open space schools. Principals in all types of schools tended to have stronger opinions than did teachers, and few were neutral on any satisfaction question. Also, teachers who asked to teach in their schools were less often neutral than those who did not choose to teach in a particular school.

The sample of neighbors and parents was reduced considerably for the question on the interior appearance as many had not been inside the buildings during the current school year. Furthermore, as expected, more parents than neighbors had visited the schools.

### Whole Building

#### 1a. Exterior Appearance

More NSO teachers, students, and neighbors and parents liked the exterior appearance of their schools, compared to the same groups of respondents in SEF or NST

schools. More than two-thirds of all students liked the type of building they attended. Teachers were much more critical than students, and were generally more critical than neighbors and parents.

Far fewer NST and SEF teachers than NSO teachers liked the exterior appearance of their respective buildings. SEF teachers were much more likely to dislike the exterior than any other group of teachers, or indeed, any other group of respondents in our study. A slightly larger proportion of SEF neighbors and parents liked the outside of SEF schools "more than other schools they knew," in comparison with the proportion of SEF teachers who liked the exterior. NST neighbors and parents were preponderantly neutral toward the exterior appearance of NST schools. Generally, people liked the newer open space schools' appearance.

1b. Interior Appearance

With the single exception of NST neighbors, a larger proportion of respondents in all groups (students, teachers, parents, and neighbors) liked the interior of their schools than liked the exterior. All NST neighbors who answered were either neutral or actively disliked the interior appearance of their schools.

Comparing open plan schools and traditional plan schools, the interior appearance of the newer open plan schools was liked by a larger proportion of all groups of respondents than the interior of the older traditional plan schools.

More SEF neighbors than NSO neighbors liked the interior, but otherwise differences between SEF and NSO were minimal. An overwhelming majority of open plan teachers, students and parents liked both types of interiors.

1c. Importance of Appearance

Relatively little importance was given to attractive appearance by a majority of teachers and principals. However, about two-thirds of the students said the look of the school was important. Interestingly, students who said it was important tended to like both the exterior and interior, and conversely, those who said it was unimportant, tended to dislike the appearance.

2. Layout

Many teachers in each type of school assigned a great deal of importance to convenient layout. However, layout seemed to assume more importance in open space schools; fewer teachers were neutral about layout in open plan schools than in

traditional plan schools. Also, more open space teachers liked the layouts of their schools. There were only minor differences between the two types of open plan schools. Teachers who asked to teach in the school and teachers in small schools were more likely to like the layout.

3. Adequacy of Provisions for Privacy

A majority of teachers felt provisions for privacy were inferior. Teachers' ratings on provisions for privacy provided no differences between open plan and traditional plan schools, nor between NSO and SEF schools. Apparently, privacy did not depend on the presence or absence of partitions.

4. Adequacy of Atmosphere, Roominess, Acoustics, and Lighting

On an overall adequacy scale of the above four items, more SEF teachers than either NSO or NST teachers rated their schools highly. More NSO teachers rated their schools as low in adequacy.

Out of 10 items teachers and principals rated floor area and atmosphere (along with layout and noise control) as greatest in importance for an ideal school. There was a major discrepancy between the adequacy and the importance of atmospheric conditions. Atmospheric conditions were judged high in importance, but low on adequacy across all types of schools.

More SEF and NST teachers gave higher ratings on adequacy of roominess than teachers in NSO schools. Comparing the two types of open plan schools, twice as many NSO teachers as SEF teachers rated the roominess "inferior."

SEF had the highest proportion of teachers who gave a superior rating for the adequacy of both acoustics and lighting. More teachers from open space schools were pleased with these facilities, whereas a majority of NST teachers clustered their responses around "adequate."

5. Fountains/Bubblers

A large proportion of teachers in all schools regarded the provision of drinking fountains as adequate.

6. Telephones

Both outside and inside telephones were rated as superior by more teachers in the open plan schools than in NST schools. Comparing SEF and NSO, a larger

proportion of NSO teachers rated outside telephones "adequate"; SEF teachers had more ratings in both superior and inferior categories. However, for inside telephones over three times as many SEF teachers as NSO teachers rated them "superior".

7. School Building

Students were the only group asked an overall question about how much they liked their school buildings in comparison to other schools they knew. More open space students than NST students liked their schools "a lot". Slightly more NSO students than SEF students liked their buildings. Students from high socio-economic areas and who go to small schools which are below capacity tended to like their schools "a lot".

Specialized Areas of the School

Teachers in each type of school varied more than the students on their satisfaction with individual areas and frequently teachers' and students' ratings gave a different rank ordering.

1. Library/Resource Centre

Frequent visits to the library did not necessarily influence students liking or disliking the library. Many more SEF students visited the library more frequently than did students in NSO or NST schools; but nearly 90 per cent of all students liked the library/resource centre. There were no significant differences by type of school.

The newer, larger open space libraries were liked "a lot" by two-thirds of the teachers in those schools, compared to a quarter of the NST teachers who liked their particular libraries "a lot". Comparing SEF and NSO, a slightly higher proportion of NSO teachers liked their libraries.

2. Gym

Although students overwhelmingly liked the gym, there were differences by school types. Gyms in open space schools were liked by a higher proportion of students than in NST schools. A slightly higher proportion of NSO students than SEF students liked their gyms. More than three times the number of open space teachers than traditional space teachers liked their gyms. NST teachers tended to like their gyms "a little" or be neutral; a much higher proportion of NSO teachers

than either SEF or NST teachers disliked the gym. Comparing SEF and NSO, many more SEF teachers liked the gym.

5. Music Room

Nearly two-thirds of the SEF teachers liked their music rooms, compared to nearly three-quarters of the SEF students who liked this facility. As none of the NST schoolshad a designated music room, and NSO schools used a variety of seminars, open space, and enclosed classrooms for music, comparisons between open and traditional plan schools cannot be made.

4. Teacher Preparation Rooms

All SEF schools had teacher preparation rooms. Only a half of NSO teachers and about a quarter of NST teachers had this facility. Among teachers who had preparation rooms, there were no significant differences either between open and traditional space or SEF and NSO in their rating of this facility.

5. Lunch Room

Nearly 30 per cent of all children in the sample ate lunch at school. There were no differences in their attitudes toward their lunch room among types of schools.

6. Playground

The data on the liking of the playground by students was incomplete.

More SEF teachers rated both the amount of playground space and playground facilities as superior than either NSO or NST teachers. Comparing open and traditional plan schools, more open space teachers than NST teachers rated their playgrounds as superior. However, when choosing among 10 items, outdoor area was not given much importance by teachers, relative to other environmental characteristics.

7. Washrooms

There were no differences between open and traditional plan teachers with respect to school washrooms. However, many more teachers in NSO schools found their facilities satisfactory than did so in SEF schools.

Teaching Area/Classroom (Excludes Principals and Vice Principals)

Teachers in open plan and traditional plan schools did not differ in their opinion of their teaching areas. However, comparing SEF and NSO, more NSO teachers

disliked their teaching areas.

1. Acoustics, Lighting, Amount of Floor Area, and Location of Teaching Areas/ Classrooms

Noise control, layout, and amount of floor area were the three items rated of greatest importance for an ideal school. However, there were no significant differences across types of schools on teacher ratings of floor area and location of their own teaching areas or classrooms. Approximately half of all teachers found these two items "adequate". Among students, over half of the students found their class areas "never too crowded". Twice as many SEF teachers as NSO or NST teachers rated the acoustics and lighting in their teaching area as superior. On a scale of adequacy for these four items, more SEF teachers gave their school high ratings for overall adequacy than teachers from other types of schools.

Teachers had a different perception of the whole school than of their own teaching areas. Generally, more teachers gave higher ratings to the whole school than to their own areas. More NST teachers rated the amount of floor area inferior in their class area than in the whole school; however, on acoustics, they tended to give the whole school more inferior ratings then their own class areas.

2. Windows

Nearly half of all teachers found windows "adequate". There were no differences between open and traditional plan schools concerning windows. Comparing SEF and NSO, twice as many SEF teachers rated their windows "inferior". However, more SEF teachers gave low ratings to the importance of windows.

3. Floor Covering

The open space schools had many more superior ratings for floor covering than NST schools. Comparing SEF and NSO, twice as many NSO teachers rated it inferior.

4. Electrical Outlets

The newer open plan schools had more superior ratings than NST schools. However, for an ideal school, electrical outlets are important to very few teachers.

5. Furniture

About half the teachers judged furniture neither important nor unimportant to their ideal school. Over half the teachers in all schools were satisfied with their

furniture; there were no significant differences between types of schools. While a substantial majority of all students liked their furniture, more students in open space schools liked it than in NST schools. Comparing SEF and NSO, more students in NSO schools liked their furniture than did so in SEF schools.

Parents and neighbors generally reported that their school was better equipped for children's programs than other schools they knew; half of those questioned reported that it was equipped as well as other schools for adult use. A small number of respondents suggested a need for some additional furniture or equipment, particularly sports equipment or showers.

a. Cupboards, Bookshelves, Chairs, Tables/Desks, Screens, Display Surfaces, Fixed Sinks, and Chalkboard:--Teachers rated these items superior, adequate, or inferior for their method of teaching. For most items, the superior rating was used by one fifth or less of all teachers. The inferior end of the scale was used more liberally by all teachers on most items.

More teachers in NST schools gave high adequacy ratings to their cupboards, bookshelves, display surfaces, chalkboard, tables and desks than did teachers in open space schools. More teachers in SEF schools gave high ratings to chairs than in non-SEF schools. More teachers in NSO schools gave high ratings to their fixed sinks than did so in other schools.

6. Noise

Open plan schools were judged to be noisier than traditional plan schools by the students, teachers, and observers. A majority of teachers in all schools rated their teaching areas as sometimes too noisy. However, six times as many open plan teachers as NST teachers found their teaching areas "often too noisy." There were only minimal differences in the responses of teachers in the two types of open space.

In all cases, a larger proportion of students than teachers rated their class areas "often too noisy." This was particularly evident in the case of students in NST schools. In NST schools, four times as many students as teachers rated their areas "often too noisy."

While SEF schools had the highest proportion of spaces at medium noise level, overall, the observers found the NST schools the quietest. There were fewer

distinct types of noises in traditional plan schools compared to open plan. Comparing SEF and NSO, the observers identified three or more distinct sounds for half their observations in SEF schools, compared to a third of their observations in NSO schools.

7. Atmosphere: Too Hot, Too Cold in Teaching Area/Classroom

Comparing open and traditional plan schools, more teachers and students in the open plans were "never too hot." SEF teachers and SEF students were the groups most satisfied with the warmth of their areas.

There was a dissimilarity between the answers of teachers and students with respect to coldness. Two-thirds of open space students, both SEF and NSO, were never too cold, compared to one-third of NST students. However, fewer SEF teachers than non-SEF rated their areas "never too cold."

It is worth noting that most students were apparently less sensitive to thermal conditions than teachers. Fewer students than teachers were "often too hot" and many fewer were "often too cold." Students who were critical of atmospheric conditions were more likely to be bored.

# PART IV

# OBSERVATION OF FACILITIES

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# CHAPTER 11

## RESULTS FROM DIRECT OBSERVATION

The development of the observation instrument, the training of observers, and the method used in gathering the data was described in the methodology section of this report. It should be emphasized that this section deals with the results from 2,900 observations of general teaching areas, kindergartens, libraries, and commons, but excludes the data from other specialized areas.

Several safeguards were built into the observation procedures to offset the possibility of observer error. First, the observers were employees of a commercial research firm and not a school board. Second, the need for objectivity was stressed to the observers. Furthermore, the purpose of some of the questions was disguised and the observers alternated across different types of schools. Finally, spot checks were made on the observers.

The observers were instructed to look at three main aspects of activity: the general structure of the area; the teaching style; and the activities of the students. The items were then combined in the analysis to gain an overall view of the activity patterns in each type of school.

In addition, observations were made of the dispersion of people in the spaces. This included such measures as the number of students in a space, the number of groups in a space, and the number of students working alone.

### Structure of and Focal Points in a Space

The observers first looked at the arrangement of the furniture in the space. A space was judged to have had high definition if the furniture was set up in a very definite and organized pattern. This would occur in a space where student desks were arranged neatly in rows with the teacher's desk at the front, or where students' chairs were arranged in a formal semicircle around a teacher.

A space had low definition if the furniture was scattered around the room with little apparent pattern. Finally, a room in which some of the furniture was organized and the rest of it scattered was labelled combination.

A comparison of the types of schools showed that the SEF schools had the highest percentage of low definition spaces (38.1 per cent), the NSO schools the highest percentage of spaces designated "combination" (68.5 per cent) and the NST schools the highest percentage of high definition spaces (33.9 per cent). (See Table 1, Appendix III).

The observers also recorded the number of focal points in each space. For example, if an observer in a space saw one group of students looking at some rabbits, another group watching a TV program, and a third group working with a teacher at a flipboard, the observer would record three focal points for that space. If all the students were working independently and the teacher was walking about, this would be recorded as zero focal points.

In the SEF schools, over half the time (53.1 per cent of the observations) there were several focal points in a space, while in the NSO and NST schools, the observers reported several focal points in a space about one-third of the time (32.9 per cent and 31.1 per cent respectively). (See Table 2, Appendix III)

The answers recorded on the furniture arrangement of and the focal points in the room were combined into a scale of structure. If a space had high definition and one focal point, it would be indexed as high structure; conversely, if the space had low definition and several focal points, it would result in a low structure score.

SEF schools had the highest percentage of space with low structure scores (22.7 per cent) and the NST schoolshad the highest percentage of spaces with high structures (57.8 per cent). The NSO schools had the smallest percentage of spaces with low structure scores (6.9 per cent). (See Table 3, Appendix III)

In addition to differences among school types, the scale of structure varied with the socio-economic status of the neighborhood and with the size of the school. Schools which were in low socio-economic districts had a higher percentage of spaces with low structure and medium structure (18.2 per cent and 41.9 per cent respectively) than the schools in higher socio-economic areas. Schools in medium

socio-economic areas had the highest percentage of highly structured spaces. On the other hand, the larger schools had a higher percentage of spaces with low structure than did the medium and smaller schools. The latter were most likely to have highly structured spaces. (See Tables 4 and 5, Appendix III)

Style of Teaching

When an adult was in a room, the observers scored the adult as either being engaged or not engaged with students. To be scored as "engaged", an adult had to be talking with and/or listening to students. If the adult was observing students, talking with another adult or working alone, the adult was scored "not engaged."

A somewhat larger percentage of the adults in SEF schools were scored as engaged (77.0 per cent) than in the NSO and NST schools (73.9 per cent and 69.6 per cent). These differences were statistically significant, but numerically small. (See Table 6, Appendix III)

A situation was rated formal if the adult appeared tense, informal if the adult appeared relaxed, and neutral if the observer could not sense either tension or informality. The highest percentage of informal situations were found in the SEF schools (55.0 per cent) and the highest percentage of formal in the NST schools (19.9 per cent). The NSO schools had the highest proportion of neutral scores (48.4 per cent). (See Table 7, Appendix III)

The observers also recorded the adults' physical position in relation to students. If, for example, the adult was bending down to a child or kneeling beside a child, the situation was scored personal. If the adult was close enough to touch a student or was formally helping a student with no physical barriers between them, the situation was scored conventional. Finally, if the adult was at a blackboard, behind a desk, or beyond touching distance of the children, the situation was scored distant.

Approximately 43 per cent of the situations in all types of schools were scored conventional. However 29.1 per cent were scored personal in SEF schools, compared with 19.0 per cent in the NST schools and 13.2 per cent in the NSO schools. (See Table 8, Appendix III)

A scale of the style of teaching was developed by combining the engagement or non-engagement of the adult, the formality or informality of the situation, and the adults' position in relation to the students. A high style indicated that the teacher was not engaged, and was formal and distant in relation to the children. A low style score resulted when the teacher was engaged with the students, appeared relaxed, and was within personal distance of the students. A medium score resulted when a teacher was engaged but where the social atmosphere was neutral and the teacher was sitting with a group. The highest percentage of adults with low style scores was in the SEF schools (44.5 per cent), the highest percentage of medium style scores was in the NSO schools (53.5 per cent), and the highest percentage of high style scores was in the NST schools (22.4 per cent). (See Table 9, Appendix III)

Schools which were large in size and in low socio-economic districts had a higher percentage of low style scores. Schools in the high socio-economic districts and schools small in size tended to have the smallest percentage of low style scores. (See Tables 10 and 11 in Appendix III)

Activities of Children

The observers next recorded the movement of people in the space. The amount of movement was rated none if no children were walking, or if only one adult or student were walking. If there were two to five people walking about, movement was scored moderate. Where more than five people were walking about a space, movement was scored as considerable.

Across all schools, the observers found considerable movement in 9.5 per cent of the situations. However, in 50.5 per cent of the spaces in SEF schools, there was moderate movement. This compared with 36.0 per cent in the NSO schools and 31.9 per cent in the NST schools (See table 12, Appendix III).

The variety of tools being used by the students is also a measure of activity. All tools were divided into six categories as follows:

- Fixed Marking and Reading: chalkboard, display or bulletin boards
- Portable Marking and Reading: all books and notebooks, pencils, pens, experience charts, etc.
- Manipulative Cyclical: table games, sports equipment, sand or water play, puppet play, test tubes, math shapes, scissors, carpentry tools, maintenance tools (brushes, brooms, carpet sweeper, cloths)

- Manipulative Noncyclical: materials consumed in activities such as sculpting, painting, pasting, cutting, and in making collages, clothes and puppets.
- Non-powered: whistle, hand bell, and all musical instruments; magnifying glass, telescope, microscope; scales, paper cutter, abacus; bicycles, tricycles; typewriter or any other machine which is not powered.
- Powered: electric drill, electric bell, electric typewriter, intercom, telephone, sewing machine, all AV equipment.

The observers found that three or more categories of tools were being used 48.3 per cent of the time in SEF schools, 20.8 per cent of the time in NSO schools, and 23.4 per cent of the time in NST schools. (See Table 13, Appendix III)

The amount of noise in a space was also taken as a measure of the activity. Three levels of noise were used. The first, called silence, referred to situations in which no one or only one person was talking; the second was the hum level in which there was a gentle hum of talking and activity; the third or high level was that which was judged likely to disrupt other people in the room or in adjacent areas. For example, singing and piano playing would normally indicate a high level, but the gentle strumming of a guitar would be in the second level.

Overall, the NST schools were the quietest, while the SEF schools had the highest percentage of ratings in the middle noise level. However, in both SEF and NSO schools, about 16 per cent of the spaces fell into the high noise category, whereas only 9.6 per cent of the spaces in the NST schools were judged to have a high noise level. (See Table 14, Appendix III)

In addition to rating the overall noise level for each space, it was necessary to get some idea of the number of distinct noises. The observers were asked to close their eyes and listen. They then simply counted the number of sounds that they were able to discriminate. Using this measure, the observers identified three or more sounds half of the time in SEF schools, one-third of the time in the NSO schools, and one-fifth of the time in the NST schools. (See Table 15, Appendix III)

The scores obtained regarding movement of children, variety of students' tools in use, and the number of distinct noises were combined to form a scale of physical activity. The highest score on the physical activity scale described a space in which more than five children were walking around, many categories of tools were in use, and which had many distinct noises. A low score described a space in which all the students were seated at their desks silently or listening to a teacher's instruction.

SEF schools had more than double the proportion of high physical activity scores relative to the NSO and NST schools, 17.0 per cent vs. 5.8 per cent and 7.5 per cent respectively. However, in the middle range of the scale, the SEF and NSO were similar (66.1 per cent and 67.5 per cent respectively). The NST schools scored lowest on the physical activity scale (16.9 per cent). Medium size schools, and schools in middle level socio-economic areas had a greater proportion of low physical activity. (See Tables 16, 17, and 18, Appendix III)

Distribution of People in the Space

Another question of concern was the number of groups that were using a space. Was the class sitting together as one group or dispersed in smaller groups? When a class was kept together, all the students generally were doing the same kind of talk. In smaller groups, students could still all be doing the same talk but there was more opportunity for different groups to be doing different things. A variety of groups in the teaching areas presumably permitted more children to learn in different ways and at different speeds.

Looking across types of schools, it was found that all children in a space were in one cluster 40.0 per cent of the time in the NST schools, 31.0 per cent of the time in the NSO schools and 25.5 per cent of the time in the SEF schools. On the other hand, there were four or more clusters of students 44.3 per cent of the time in SEF schools, 41.9 per cent of the time in NSO schools, and 34.0 per cent in the NST schools. (See Table 19, Appendix III)

As one would expect, the greater the number of clusters formed in one space, the smaller would be the size of the largest cluster. The average size of the largest cluster was smaller in the SEF and NSO schools than it was in the NST schools. (See Table 20, Appendix III)

Where several clusters existed, one would expect more students to be working on their own. The results indicated that in SEF schools, three or more students were found working alone almost half the time (48.7 per cent) while in the NSO and NST schools three or more students were working alone about one-quarter of the time (26.5 per cent and 28.2 per cent respectively). (See Table 21, Appendix III) This observation contradicts the students' statements on the amount of time they spent working independently. (See page 35)

In a very real sense, the number of groups, the size of the largest group, and the number of people working alone is determined by the number of students in a space. Looking across types of schools, the observers reported that in the NST

schools, there were 21 or more students in a space 77.7 per cent of the time, as compared with 58.3 per cent for the SEF schools and 56.4 per cent for the NSO schools. At the same time, there were between one and twelve students in a space 8.0 per cent in the NST schools as contrasted with 18.3 per cent in the SEF schools and 22.1 per cent in the NSO schools. (See Table 22, Appendix III) To some extent, these findings probably reflected the lower occupancy rates in the newer schools.

The data generally indicated some common sense notions such as if the number of students in a space went up, the more likely that the number of clusters would also go up. However, the interrelationship among these variables also pointed to facts which were not as easily predicted. For example, there was a higher percentage of three or more students working alone in spaces containing 13-20 people than there was in spaces which contain 21 or more people. Put in a somewhat different manner, there was a higher percentage of no children working alone in a space that had 21 or more children than there was in a space which had one to twelve children. However, the data did illustrate that as the number of clusters in a space increased, the number of children working alone increased. These interrelationships are being further investigated. (See Tables 22-25, Appendix III)

Examination of the data showed that schools in medium socio-economic districts had the highest frequency of having 21 or more students in a space, were least likely to have students working alone, and were most likely to have only one cluster in a space. Schools in low and high socio-economic areas were similar in the number of students working alone, but those in high socio-economic districts had fewer children per space while those in low socio-economic areas had more clusters formed in their spaces. (See Tables 26-29, Appendix III)

Scale of General Activity

This scale was an overall measure of the general activity taking place in the in the schools. The scale was constructed by summing the scores from the scale of structure, scale of teaching style, and scale of physical activity. For simplicity of presentation, the index was reduced to a trichotomy of low, medium, and high general activity. All the variables in the scale were positively related. That is, if the furniture in the space were arranged with high definition

and if there were only one focal point, then there was a good possibility that the teacher was acting formally and that the students were probably in one cluster and using few categories of tools. Such a space would have received a low general activity score and provided a pretty good picture of a "standard" school setting. On the other hand, if the furniture in the space were randomly arranged and if there were several focal points, it was likely that the teacher would be acting in an informal manner within easy reach of the children. There was also a good possibility that a variety of tools would be in use by several clusters of students and that several students would be working alone. Such a situation would yield a high general activity score and would in many educators' opinions, typify desirable "open plan" education.

A higher proportion of spaces in SEF schools ranked in the medium and high range of the general activity scale than did NSO and NST schools. The NSO schools had almost the same number of spaces in the medium range of the general activity scale as did SEF schools (SEF 48.7 per cent, NSO 45.1 per cent, and NST 31.7 per cent). More spaces in the NST schools fell into the high end of the general activity scale than did NSO schools (SEF 18.8 per cent, NSO 5.8 per cent, and NST 9.8 per cent). (See Table 30, Appendix III)

Large schools in low socio-economic districts had the highest proportion of spaces in the middle and high range of the general activity scale. Small schools in middle socio-economic areas had the highest number of spaces at the lower end of the general activity scale. (See Tables 31 and 32, Appendix III)

The number of students in a space was related to the general activity scale scores. Spaces with 13-20 students had double the number of high scores on the general activity scale as spaces with one to twelve students or those with 21 or more students (20.7 per cent, 11.3 per cent and 9.9 per cent respectively). Half the spaces with between one to twelve students scored in the middle range of the general activity scale as compared with 40 per cent in the spaces with 13-20, or 21 and more students. Finally, half the spaces with 21 or more students scored in the low end of the scale, as contrasted to 40 per cent of the spaces with one to twelve or 13-20 students. (See Table 33, Appendix III)

As one would expect, spaces that only had one cluster had the highest proportion of scores at the low end of the general activity scale. (See Table 34, Appendix III)

e was also a positive relationship between the number of individuals working
ıe in a space and the amount of activity indexed on the general activity
le. In other words, the more children working alone in a space, the greater the total amount of activity in a space. (See Table 35, Appendix III)

Summary

One point should be clarified. While it is true that overall the SEF schools had higher general activity patterns than did the NSO and NST schools, there were NSO and NST schools which had patterns as "open" as the SEF schools. At the same time, there were SEF schools which were not as "open" as some of the NSO and NST schools. The differences in level of activity could have resulted from differences between the teachers rather than from differences among the facilities. However, there were no significant differences across types of schools in the teachers' amount of education, years of experience, age, sex, etc. The only significant difference that was found was that over half of the teachers in the SEF schools asked to teach in their schools compared with less than a quarter in the NSO and NST schools. Given that all the SEF schools were new and received a lot of publicity about their "flexibility", it was likely that a high proportion of open style teachers self-selected themselves into SEF schools.

While it has been shown that there were different activity patterns in the three types of schools, it is not yet established whether or not these patterns have differential effects on what the children learn.

The results obtained and the above discussion led to the following conclusions:

1. The SEF schools were quite distinct from NSO and NST schools. On the whole, in SEF schools there was less structuring of spaces, teachers were more personal and informal with the students, students worked more often in small groups or alone, and used a greater variety of tools than in NSO or NST schools.

2. The differences were not as clear between the NSO and NST schools. On the average, the NSO schools had more spaces arrayed in combinations than NST schools, but both types had an equal distribution of focal points. While the NSO schools had more teachers engaged with the students and more teachers using an informal manner with students than in the NST schools, more teachers in the NST schools used a personal style with students than teachers did in the NSO schools. Also,

students in NSO schools moved around more and made more noise than students in NST schools, but students in both types of schools used about the same variety of tools. Finally, students in NSO schools worked in small groups more often and tended to work alone more often than students in NST schools.

3. Large schools which were in low socio-economic districts tended to have more "open" patterns than schools which were in middle or high socio-economic districts and which were either medium or small in size. Small schools which were in the middle socio-economic category tended to have the most traditional patterns. These results could have been due to the fact that the low socio-economic status schools which were large in size in this sample were also likely to be "inner city" schools. In recent years, these inner city schools have received more "special" teachers and larger amounts of money for tools than the other types of schools. These factors might have had a lot to do with the "open" patterns seen in these schools.

4. The number of clusters of students was a key indicator of an open style teaching and this teaching occurs more frequently in open plan schools.

5. Teaching areas in which there is a medium range of students (13-20) tended to have more "open" patterns than spaces with either a small or a larger number of students.

## SUMMARY

Specific conclusions regarding SEF schools and our recommendations are set out at the beginning of the report.

Despite the need for additional and more refined analyses, a number of general statements can be made at this time. The usual qualifications concerning interpretation, sampling error, confidence levels, etc. are appropriate. Nonetheless, we have a great deal of confidence in the following findings.

General Observations

1. All types of schools in the study have quite satisfactory educational environments from the standpoint of the majority of users.

2. Each school is unique. There is as much variety of more within each of the three school types as there is between SEF and non-SEF, or between SEF and other open plan schools.

3. Teachers assign more importance to atmospheric conditions, noise control, floor area and layout than they do to other characteristics of the school building. They are least concerned about appearance, electrical outlets and visual privacy. Outdoor area, storage and furniture are judged to be moderately important.

4. The greatest concerns of users in all types of schools are with atmospheric and noise control; the next greatest problems are in layout, floor area and storage.

5. Teachers and students appear to differ as to what constitutes comfortable atmospheric conditions.

6. There is extreme variability in the use of audio-visual devices from school to school. This may relate in part to inventory, availability of outlets, and teacher training.

7. Field trips occur more frequently in the inner city schools.

8. Teachers perceive that the principals have the most influence in instituting program changes, but if the teachers have their way, they would have more influence on the school program than the principal. Teachers also feel that students and parents have little influence over program changes and that this is desirable. Principals are generally well pleased with existing influence patterns.

9. More sophisticated analytic techniques are required to distinguish the influence of teachers from the influence of the physical environment with respect to activity levels in schools.

10. The vast majority of children like school and feel they have enough freedom, although most are occasionally bored.

11. There is a considerable amount of goodwill toward the school from the public; those persons with children in school are the most pleased.

12. Although they disagree about who should pay the extra costs, most citizens are pleased with the existing permit arrangements for community use of the school building.

13. A significant number of citizens would have the school: reduce costs; extend program; and return to traditional methods.

Three other matters should be noted in addition to the above findings:

1. An observation instrument has been developed which distinguishes open style teaching without regard to the openness of the facility.

2. The advice of experienced open plan teachers to those trying open space teaching for the first time is to: schedule, organize, establish routines; and be flexible, tolerant, and considerate of others.

3. A great many teachers have moved readily and rapidly toward effective use of open plan facilities and to creative and innovative use of traditional plan schools.

Comparisons Among the Three Types of Schools

1. From the standpoint of the users, all things considered, NSO schools are just as satisfactory educational environments as are SEF schools. While there are differences favoring SEF or NSO on specific items or characteristics of the facility, the magnitude of these differences from school to school within both SEF and NSO types is generally much larger than the average difference between the types. The large overriding differences are generally found between new (open plan) schools and older (traditional plan) schools.

2. The environments provided by older schools are not as satisfactory to users as those found in newer schools. ( All the open plan schools are new or newly remodelled.)

3. Open plan schools work well for many people. On the average, students in the open plan schools feel that they spend fewer hours in their class area, go to other areas of the school more often, and talk to a larger number of teachers than do children in traditional schools. Furthermore, they feel that they use the audio-visual equipment more often, visit the library more often, go on field trips more often, and rearrange their chairs and desks more often than students in traditional schools.

4. Open style teaching occurs in traditional plan schools but not as frequently as in open plan schools. Traditional plan schools may not be as conducive to co-operative teaching. More variable groupings occur in open plan schools.

5. Teachers in traditional plan schools report that they spend more time on individual planning than do teachers in open plan schools. However, more joint planning takes place in open plan schools.

6. Three-quarters of the teachers in traditional plan schools say they like the enclosed classroom more than do other teachers they know. However, less than half the teachers in open plan schools claim to like the enclosed classroom more than do other teachers they know.

7. Open plan schools are noisier and there is dissatisfaction with the provision of chalkboard and display surfaces.

8. Many users in the older traditional plan schools indicate that the provision of electrical outlets is insufficient.

9. The relationship between open style (high activity) teaching and behavioral outcomes in students has not been established. It seems probable that students attending open style schools will display different attitudes toward information and different tendencies regarding teamwork.

# APPENDICES

SEF ACADEMIC EVALUATION

APPENDICES

I Instruments for SEF Academic Evaluation, 1971

1. Student Questionnaire
2. Teachers' and Principals' Questionnaire
3. Neighbor and Parent Questionnaire
4. Observation Record - Long Form
5. Observation Record - Short Form

II Charts to Illustrate Comparative Satisfaction: Actual vs. Ideal School Building

III Observation Tables

IV Annotated Bibliography of Research on Open Space Schools

V Bibliography of Bibliographies and Directories on Open Space Schools

## APPENDIX I

Instruments for SEF Academic Evaluation, 1971

1. Student Questionnaire
2. Teachers' and Principals' Questionnaire
3. Neighbor and Parent Questionnaire
4. Observation Record - Long Form
5. Observation Record - Short Form

Note: The instruments are reproduced here in a slightly different version than the original in order that the frequency of responses by the three types of schools may be given. Many questions had more response categories than are shown but it was sometimes necessary to combine or omit answers to provide a sufficiently large number of answers for analysis.

Copies of the original instruments may be obtained by writing to SEF, 155 College Street, Toronto 2B, Ont.

STUDENT QUESTIONNAIRE

| | Frequency of response by type of school. Some response categories have been combined or omitted. | | | |
|---|---|---|---|---|
| | SEF % | NSO % | NST % | Total % |
| 1. Name of school | | | | |
| 2. | | | | |
| 3. Type of school | | | | |
| A. SEF | | | | |
| B. Non-SEF - open plan | | | | |
| C. Non-SEF - traditional plan | | | | |
| 4. Are you a boy or a girl? | | | | |
| A. Boy | 51.7 | 45.0 | 46.6 | 48.6 |
| B. Girl | 48.3 | 55.0 | 53.4 | 51.4 |
| 5. How old are you today? | | | | |
| A. 10 years or younger | 28.9 | 36.5 | 32.8 | 31.9 |
| B. 11 years | 45.3 | 46.0 | 39.7 | 43.9 |
| C. 12 years or older | 25.8 | 17.5 | 27.5 | 24.3 |
| 6. Were you born in Canada? | | | | |
| A. Yes | 80.6 | 80.9 | 87.5 | 82.6 |
| B. No | 19.4 | 19.1 | 12.5 | 17.4 |
| 7. What was the first language you learned to speak? | | | | |
| A. English | 80.7 | 66.1 | 80.7 | 77.2 |
| B. Any other language | 19.3 | 33.9 | 19.3 | 22.8 |
| 8. What is your grade level in school? | | | | |
| A. 5th Grade | 38.3 | 54.1 | 52.5 | 46.2 |
| B. 6th Grade | 47.2 | 40.1 | 46.2 | 45.2 |
| C. 5th and 6th Grade | 14.4 | 5.8 | 1.3 | 8.6 |
| 9. Do you like going to school? | | | | |
| A. I like it a lot | 44.9 | 55.1 | 47.9 | 48.2 |
| B. I like it a little | 28.0 | 23.2 | 33.4 | 28.4 |
| C. Neutral or dislike | 27.1 | 21.7 | 18.7 | 23.4 |
| 10. In school, how often do you work by yourself or in a small group? | | | | |
| A. Often | 47.6 | 56.1 | 47.7 | 49.7 |
| B. Sometimes or never | 52.4 | 43.9 | 52.3 | 50.3 |
| 11. In this school, how much do you get your own way? | | | | |
| A. More than I should | 8.5 | 6.8 | 5.3 | 7.2 |
| B. Just about enough | 75.8 | 80.6 | 77.3 | 77.4 |
| C. Less than I should | 15.7 | 12.5 | 17.4 | 15.4 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| **12. How often are you bored in school?** | | | | |
| A. Often | 13.1 | 9.5 | 12.1 | 11.9 |
| B. Sometimes | 69.2 | 72.2 | 69.5 | 70.1 |
| C. Never | 17.7 | 18.3 | 18.4 | 18.0 |
| **13. How much do you like the look of the outside of your school?** | | | | |
| A. I like it a lot | 41.6 | 61.8 | 28.2 | 42.7 |
| B. I like it a little | 21.2 | 24.4 | 38.4 | 26.8 |
| C. I neither like it nor dislike it | 13.3 | 9.9 | 18.4 | 13.9 |
| D. I dislike it | 23.9 | 3.8 | 15.1 | 16.5 |
| **14. How much do you like the look of the inside of your school?** | | | | |
| A. I like it a lot | 79.8 | 88.6 | 45.6 | 72.3 |
| B. I like it a little | 12.7 | 6.8 | 33.1 | 17.1 |
| C. Neutral or dislike | 7.5 | 4.6 | 21.3 | 10.7 |
| **15. How important ot you is the look of your school?** | | | | |
| A. Very important | 26.2 | 27.0 | 23.9 | 25.8 |
| B. Important | 39.1 | 44.1 | 38.7 | 40.2 |
| C. Neither important nor unimportant | 22.9 | 19.8 | 23.6 | 22.3 |
| D. Unimportant | 11.8 | 9.1 | 13.8 | 11.7 |
| **16. Do you like the school library or resource centre?** | | | | |
| A. I like it | 90.7 | 89.3 | 92.8 | 91.0 |
| B. I neither like it nor dislike it | 6.5 | 7.3 | 5.2 | 6.3 |
| C. I dislike it | 2.8 | 3.4 | 2.0 | 2.7 |
| **17. Do you like the music room?** | | | | |
| B. I like it | 72.3 | 67.3 | 65.0 | 70.2 |
| C. I neither like it nor dislike it | 16.6 | 19.0 | 17.5 | 17.3 |
| D. I dislike it | 11.1 | 13.7 | 17.5 | 12.5 |
| **18. Do you like the gym (general purpose room)?** | | | | |
| B. I like it | 92.8 | 94.9 | 86.8 | 91.6 |
| C. I neither like it nor dislike it | 4.8 | 3.5 | 8.1 | 5.4 |
| D. I dislike it | 2.4 | 1.6 | 5.1 | 3.0 |
| **19. Do you like the place where you eat lunch in school?** | | | | |
| B. I like it | 57.6 | 48.3 | 54.2 | 54.5 |
| C. I neither like it nor dislike it | 15.2 | 12.1 | 21.2 | 16.9 |
| D. I dislike it | 27.3 | 39.7 | 24.6 | 28.6 |
| **20. Do you like the playground at your school?** | | | | |
| A. I like it | 58.1 | 68.4 | 69.3 | 64.1 |
| B. I neither like it nor dislike it | 41.9 | 31.6 | 29.5 | 35.5 |
| C. I dislike it | -- | -- | 1.1 | 0.4 |
| **21. Do you like the place for your coat, hat and boots?** | | | | |
| A. I like it | 57.9 | 75.3 | 68.9 | 65.2 |
| B. I neither like it nor dislike it | 24.6 | 19.8 | 21.5 | 22.6 |
| C. I dislike it | 17.5 | 4.9 | 9.6 | 12.2 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 22. Do you like the place for your other belongings (books, pencils, etc.)? | | | | |
| A. I like it | 50.3 | 65.5 | 71.1 | 59.9 |
| B. I neither like it nor dislike it | 18.3 | 18.0 | 20.7 | 18.9 |
| C. I dislike it | 31.4 | 16.5 | 8.2 | 21.2 |
| 23. Is your class area too warm? | | | | |
| A. Often | 10.0 | 9.1 | 10.8 | 10.0 |
| B. Sometimes | 51.8 | 70.0 | 80.3 | 64.3 |
| C. Never | 38.2 | 20.9 | 8.9 | 25.7 |
| 24. Is your class area too cold? | | | | |
| A. Often | 3.1 | 3.4 | 3.6 | 3.3 |
| B. Sometimes | 32.7 | 35.0 | 60.9 | 41.2 |
| C. Never | 64.1 | 61.6 | 35.5 | 55.4 |
| 25. Is the air in your class area too dry? | | | | |
| A. Often | 9.4 | 6.5 | 6.2 | 7.8 |
| B. Sometimes | 33.2 | 31.2 | 41.8 | 35.1 |
| C. Never | 57.4 | 62.4 | 52.0 | 57.1 |
| 26. Is the air in your class area too damp? | | | | |
| A. Often | 4.3 | 3.0 | 3.0 | 3.6 |
| B. Sometimes | 19.5 | 18.6 | 29.8 | 22.2 |
| C. Never | 76.2 | 78.3 | 67.2 | 74.2 |
| 27. Is it too noisy for you in your class area? | | | | |
| A. Often | 28.7 | 33.2 | 18.4 | 26.9 |
| B. Sometimes | 61.9 | 56.9 | 65.6 | 61.7 |
| C. Never | 9.4 | 9.9 | 16.1 | 11.4 |
| 28. Is it too crowded for you in your class area? | | | | |
| A. Often | 7.3 | 11.9 | 8.3 | 8.7 |
| B. Sometimes | 41.8 | 31.0 | 32.5 | 36.6 |
| C. Never | 50.9 | 57.1 | 59.3 | 54.8 |
| 29. In your class area, do you have a work place of your very own? | | | | |
| A. Yes | 39.5 | 21.8 | 66.8 | 42.9 |
| B. No | 60.5 | 78.2 | 33.2 | 57.1 |
| 30. How important to you is a work place of your very own? | | | | |
| A. Very important | 27.1 | 28.6 | 30.3 | 28.3 |
| B. Important | 30.0 | 26.3 | 42.8 | 32.7 |
| C. Neither important nor unimportant | 26.5 | 26.0 | 18.4 | 24.1 |
| D. Unimportant | 16.5 | 19.1 | 8.6 | 14.9 |
| 31. Since the school year began, how many times have you rearranged the desks or tables in your class area? | | | | |
| A. Never | 6.3 | 14.8 | 5.9 | 8.3 |
| B. 1-3 times this school year | 47.0 | 56.3 | 36.0 | 46.2 |
| C. 4 or more times this school year | 46.6 | 28.9 | 58.1 | 45.5 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 32. Since the school year began, how many times have you moved a shelf in a cupboard or bookcase in your school? | | | | |
| A. Never | 29.8 | 41.7 | 63.0 | 40.2 |
| B. 1-3 times this school year | 55.4 | 48.7 | 31.2 | 48.3 |
| C. 4 or more times this school year | 14.9 | 9.6 | 5.8 | 11.5 |
| 33. Do you like the furniture in your class area? | | | | |
| A. I like it a lot | 42.2 | 53.6 | 31.1 | 41.8 |
| B. I like it a little | 32.5 | 24.3 | 42.0 | 33.2 |
| C. I neither like it nor dislike it | 11.6 | 14.4 | 11.8 | 12.3 |
| D. I dislike it | 13.7 | 7.6 | 15.1 | 12.6 |
| 34. Since the school year began, how many times have you opened or closed a folding or sliding wall between rooms in your school? | | | | |
| A. Never | 65.6 | 57.5 | 75.0 | 63.9 |
| B. 1-3 times this school year | 28.4 | 29.5 | 12.5 | 27.4 |
| C. 4 or more times this school year | 6.0 | 13.0 | 12.5 | 8.7 |
| 35. On the average, how often do you use a portable sink? | | | | |
| A. Never | 51.7 | 78.6 | 56.1 | 57.3 |
| B. Sometimes, but less than once a week | 30.9 | 12.2 | 29.8 | 27.3 |
| C. 1 or more times a week | 17.4 | 9.2 | 14.0 | 15.2 |
| 36. On the average, how often do you visit the school library or resource centre? | | | | |
| A. Never | 2.6 | 2.3 | 3.3 | 2.7 |
| B. Sometimes, but less than once a week | 8.4 | 18.0 | 20.4 | 14.2 |
| C. 1-2 times a week | 20.4 | 37.9 | 32.9 | 28.2 |
| D. 3-4 times a week | 27.9 | 12.6 | 25.3 | 23.5 |
| E. 5 or more times a week | 40.7 | 29.1 | 18.1 | 31.5 |
| 37. On the average, how often do you see a movie in school? | | | | |
| A. Never | 3.0 | 2.3 | 8.6 | 4.4 |
| B. Sometimes, but less than once a month | 20.5 | 17.1 | 41.1 | 25.5 |
| C. 1-2 times a month | 30.3 | 21.3 | 24.3 | 26.4 |
| D. 3-4 times a month | 28.5 | 33.3 | 18.4 | 26.8 |
| E. 5 or more times a month | 17.7 | 26.0 | 7.6 | 16.8 |
| 38. On the average, how often do you view slides or filmstrips in school? | | | | |
| A. Never | 11.2 | 4.2 | 11.8 | 9.7 |
| B. Sometimes, but less than once a month | 28.0 | 26.7 | 44.7 | 32.4 |
| C. 1-2 times a month | 29.3 | 24.4 | 26.3 | 27.3 |
| D. 3-4 times a month | 18.5 | 27.9 | 10.5 | 18.5 |
| E. 5 or more times a month | 13.0 | 16.8 | 6.6 | 12.1 |
| 39. On the average, how often do you use a tape recorder or listening station in school? | | | | |
| A. Never | 12.4 | 8.5 | 19.3 | 13.4 |
| B. Sometimes, but less than once a month | 26.1 | 27.4 | 31.8 | 28.1 |
| C. 1-2 times a month | 29.3 | 34.0 | 21.0 | 28.1 |
| D. 3-4 times a month | 16.5 | 18.5 | 11.8 | 15.7 |
| E. 5 or more times a month | 15.7 | 11.6 | 16.1 | 14.8 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| **40.** On the average, how often do you view a TV program in school? | | | | |
| A. Never | 20.6 | 14.5 | 28.9 | 21.4 |
| B. Sometimes, but less than once a month | 42.9 | 35.5 | 45.9 | 42.0 |
| C. 1-2 times a month | 20.6 | 21.4 | 16.7 | 19.7 |
| D. 3-4 ti es a month | 9.2 | 9.5 | 4.6 | 8.0 |
| E. 5 or more times a month | 6.7 | 19.1 | 3.9 | 8.9 |
| **41.** On the average, how often do you go on field trips? | | | | |
| A. Never | 14.5 | 12.3 | 17.8 | 14.9 |
| B. 1-2 times a year | 24.7 | 22.3 | 22.8 | 23.5 |
| C. 3-5 times a year | 32.8 | 25.8 | 34.3 | 31.5 |
| D. 6 or more times a year | 28.0 | 39.6 | 25.1 | 30.0 |
| **42.** On an average day, how often do you leave your class area to go to other parts of the school? | | | | |
| A. 0 | 6.5 | 10.7 | 9.8 | 8.5 |
| B. 1-2 times a day | 32.8 | 35.1 | 44.3 | 36.6 |
| C. 3-4 times a day | 29.5 | 22.9 | 33.1 | 28.9 |
| D. 5-6 times a day | 16.9 | 16.0 | 7.9 | 14.1 |
| E. 7 or more times a day | 14.3 | 15.3 | 4.9 | 11.9 |
| **43.** On an average day, how many teachers do you speak to in school? | | | | |
| A. 1 teacher | 8.1 | 9.2 | 15.5 | 10.4 |
| B. 2 teachers | 16.7 | 26.7 | 24.7 | 21.4 |
| C. 3 teachers | 26.2 | 23.3 | 23.4 | 24.7 |
| D. 4 teachers | 21.7 | 17.2 | 14.8 | 18.6 |
| E. 5 or more teachers | 27.4 | 23.7 | 21.7 | 24.9 |
| **44.** On an average day, how many students do you talk to in school? | | | | |
| A. 0-5 students | 11.6 | 11.8 | 12.8 | 12.0 |
| B. 6-10 students | 18.7 | 16.8 | 23.4 | 19.5 |
| C. 11-15 students | 18.9 | 18.3 | 12.5 | 16.9 |
| D. 16-25 students | 20.2 | 21.4 | 15.1 | 19.1 |
| E. 26 or more students | 30.6 | 31.7 | 36.2 | 32.5 |
| **45.** On an average day, how many hours do you spend in your class area? | | | | |
| A. 3 hours or less | 27.5 | 33.0 | 10.7 | 24.1 |
| B. About 4 hours | 39.2 | 28.7 | 34.1 | 35.2 |
| C. 5 or more hours | 33.3 | 38.3 | 55.2 | 40.7 |
| **46.** Considering all the school buildings you know, how much do you like this one? | | | | |
| A. I like it a lot | 73.6 | 76.0 | 56.0 | 69.4 |
| B. I like it a little | 17.3 | 17.8 | 31 2 | 21.2 |
| C. Neutral or dislike | 9.2 | 6.2 | 12.8 | 9.4 |

| Open Questions: | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 47. The thing I like most about this school is: | | | | |
| 1. Open plan | 16.3 | 12.5 | 0.0 | 10.0 |
| 2. Gym | 18.0 | 8.9 | 10.0 | 13.6 |
| 3. Equipment and amenities | 21.3 | 18.3 | 3.4 | 15.9 |
| 4. Yard, Recess, Sports | 7.2 | 9.0 | 24.8 | 12.2 |
| 5. Program in general | 18.3 | 23.7 | 25.3 | 21.5 |
| 6 Library | 8.3 | 6.3 | 5.2 | 7.3 |
| 7. People (teachers, principal, kids) | 10.5 | 21.3 | 31.2 | 18.5 |
| 48. The thing I dislike most about this school is: | | | | |
| 1. Everything OK | 10.2 | 16.9 | 14.1 | 12.9 |
| 2. Open plan, dividers, noise | 12.6 | 23.4 | 0.9 | 12.2 |
| 3. People (teachers, principal, kids) | 14.7 | 11.7 | 16.9 | 14.5 |
| 4. Program and discipline | 21.9 | 23.4 | 34.0 | 25.5 |
| 5. Facilities | 16.6 | 4.2 | 10.8 | 12.1 |
| 6. Equipment and furniture | 14.7 | 9.1 | 10.5 | 12.3 |
| 7. Others | 9.1 | 11.1 | 12.6 | 10.5 |
| 49. The thing this school needs most is: | | | | |
| 1. Nothing | 9.8 | 18.7 | 6.5 | 10.9 |
| 2. People (teachers, principal, kids) | 11.0 | 11.4 | 10.9 | 11.1 |
| 3. Yard and yard equipment | 9.6 | 8.2 | 15.0 | 10.8 |
| 4. Pool, gym and gym equipment | 9.4 | 12.0 | 11.6 | 10.7 |
| 5. Facilities broadly | 17.5 | 22.1 | 13.5 | 17.4 |
| 6. Supplies, equipment, furniture | 20.2 | 12.6 | 14.8 | 16.8 |
| 7. Others, incl. program | 22.4 | 14.9 | 27.7 | 22.2 |

TEACHERS' AND PRINCIPALS' QUESTIONNAIRE

Frequency of response by type of school. Some response categories have been combined or omitted.

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 1. Name of school? | | | | |
| 3. Type of school? | | | | |
| A. SEF | | | | |
| B. Non-SEF - open plan | | | | |
| C. Non-SEF - traditional plan | | | | |
| 4. Sex? | | | | |
| A. Female | 78.5 | 72.4 | 74.0 | 76.3 |
| B. Male | 21.5 | 27.6 | 26.0 | 23.7 |
| 5. What is your position in this school? | | | | |
| A. Principal | 4.5 | 6.8 | 3.0 | 4.4 |
| B. Vice-Principal | 2.5 | 1.7 | 3.0 | 2.5 |
| C. Regular class teacher (including kindergarten) | 67.7 | 74.6 | 77.2 | 71.5 |
| D. Librarian-teacher | 5.5 | 5.1 | 3.0 | 4.7 |
| E. Special teacher (guidance, music, physical education, special English, chairman, etc.) (see next question) | 19.9 | 11.9 | 13.9 | 16.9 |
| 6. If special teacher, please specify area. ALL OTHERS: Mark "E Does not apply". | | | | |
| A. Music | 6.4 | -- | -- | 4.1 |
| B. Physical education | 17.0 | 16.7 | 14.3 | 16.2 |
| C. Special English, speech teacher, remedial reading | 21.3 | 33.3 | 23.8 | 23.0 |
| D. Other | 55.3 | 50.0 | 61.9 | 56.8 |
| 7. With what grade levels do you work? | | | | |
| A. Junior kindergarten/kindergarten | 10.2 | 12.1 | 9.9 | 10.4 |
| B. Primary (1 or 2 or 3 or any combination of these) | 35.5 | 36.2 | 38.6 | 36.5 |
| C. 3 and 4 combination | 9.6 | 5.2 | 5.0 | 7.6 |
| D. Junior (4 or 5 or 6 or any combination of these) | 24.4 | 29.3 | 32.7 | 27.5 |
| E. K-6, or 1-6 | 20.3 | 17.2 | 13.9 | 18.0 |
| 8. Where do you spend most of your working day? | | | | |
| A. Portable classroom | 0.5 | 1.7 | 11.9 | 3.9 |
| B. Library | 4.5 | 5.1 | 3.0 | 4.1 |
| C. Seminar or other small enclosed room | 3.0 | 3.4 | -- | 2.2 |
| D. Classroom/teaching area or kindergarten in the main building | 80.7 | 81.4 | 77.2 | 79.8 |
| E. Other (See next question) | 11.4 | 8.5 | 7.9 | 9.9 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 9. If "Other", where do you do most of your work? | | | | |
| A. Gymnasium/general purpose room | 22.6 | 28.6 | -- | 19.1 |
| B. Music room | 3.2 | -- | -- | 2.1 |
| C. Administrative area | 35.5 | 42.9 | 55.6 | 40.4 |
| D. Other | 38.7 | 28.6 | 44.4 | 38.3 |
| 10. How long have you worked at this school? | | | | |
| A. Since September 1970 or later | 90.0 | 49.2 | 14.9 | 62.3 |
| B. One year plus current year | 3.0 | 23.7 | 21.8 | 11.6 |
| C. Two years plus current year | 2.5 | 15.3 | 17.8 | 8.9 |
| D. Three-four years plus current year | 2.5 | 5.1 | 21.8 | 8.3 |
| E. Five or more years plus current year | 2.0 | 6.8 | 23.8 | 8.9 |
| 11. In how many other schools have you worked? | | | | |
| A. 0 | 18.1 | 30.5 | 40.0 | 26.2 |
| B. 1 | 36.3 | 20.3 | 18.0 | 28.7 |
| C. 2 | 17.2 | 11.9 | 16.0 | 16.0 |
| D. 3 | 8.3 | 11.9 | 3.0 | 7.4 |
| E. 4 or more | 20.1 | 25.4 | 23.0 | 21.8 |
| 12. How much of your teaching experience has been at junior kindergarten or kindergarten level? | | | | |
| A. None, including no prior experience at any level | 79.8 | 71.2 | 76.0 | 77.3 |
| B. Some or all | 20.3 | 28.8 | 24.0 | 22.7 |
| 13. How much of your teaching experience has been in open areas? | | | | |
| A. None | 29.6 | 25.4 | 93.1 | 46.6 |
| B. Less than one year | 51.7 | 40.7 | 2.0 | 36.1 |
| C. One or more years | 18.7 | 33.9 | 5.0 | 17.4 |
| 14. Have you had any special training for teaching in open space schools? | | | | |
| A. None | 76.5 | 84.5 | 90.0 | 81.6 |
| B. One or more days | 23.5 | 15.5 | 10.0 | 18.4 |
| 15. Did you ask to teach in this school? | | | | |
| A. Yes | 52.2 | 28.8 | 21.0 | 39.7 |
| B. No | 47.8 | 71.2 | 79.0 | 60.3 |
| 16. Considering other schools in which you have taught or which you have visited, how much do you like the general exterior appearance of this school? | | | | |
| A. I like it | 32.4 | 59.3 | 37.6 | 38.2 |
| B. I neither like it nor dislike it | 25.5 | 28.8 | 39.6 | 29.9 |
| C. I dislike it | 42.2 | 11.9 | 22.8 | 31.9 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 17. Considering other schools in which you have taught or which you have visited, how much do you like the general interior appearance of this school? | | | | |
| A. I like it a lot | 66.8 | 74.6 | 28.7 | 57.5 |
| B. I like it a little | 19.8 | 15.3 | 30.7 | 22.1 |
| C. Neutral or Dislike | 13.4 | 10.2 | 40.6 | 20.4 |
| 18. Considering other schools in which you have taught or which you have visited, how much do you like the layout (traffic patterns) of this school? | | | | |
| A. I like it a lot | 41.4 | 44.1 | 32.7 | 39.4 |
| B. I like it a little | 20.2 | 20.3 | 24.8 | 21.5 |
| C. Neutral or Dislike | 38.5 | 35.6 | 42.6 | 39.1 |
| 19. Considering other schools in which you have taught or which you have visited, how much do you like the library/resource centre in this school? | | | | |
| A. I like it a lot | 65.8 | 69.5 | 24.8 | 55.0 |
| B. I like it a little | 15.8 | 18.6 | 27.7 | 19.6 |
| C. Neutral or Dislike | 18.3 | 11.9 | 47.5 | 25.4 |
| 20. Considering other schools in which you have taught or which you have visited, how much do you like the classrooms/teaching areas in this school? | | | | |
| A. I like them a lot | 50.0 | 44.1 | 42.6 | 47.0 |
| B. I like them a little | 22.8 | 22.0 | 32.7 | 25.4 |
| C. Neutral or Dislike | 27.2 | 33.9 | 24.8 | 27.6 |
| 21. Considering other schools in which you have taught or which you have visited, how much do you like the music room in this school? (If there is no music room in your school, mark "C".) | | | | |
| A. I like it a lot | 35.0 | 10.3 | -- | 21.3 |
| B. I like it a little | 27.1 | 5.2 | -- | 16.1 |
| C. Neutral or Dislike | 37.9 | 84.5 | 100.0 | 62.6 |
| 22. Considering other schools in which you have taught or which you have visited, how much do you like the gym/general purpose room in this school? (If there is no gym/general purpose room in your school, mark "C".) | | | | |
| A. I like it a lot | 76.7 | 55.9 | 18.8 | 57.2 |
| B. I like it a little | 12.4 | 10.2 | 30.7 | 17.1 |
| C. Neutral or Dislike | 10.9 | 33.9 | 50.5 | 25.7 |
| 23. In your opinion, how adequate is the roominess of this school? | | | | |
| A. Superior | 21.2 | 18.6 | 23.2 | 21.3 |
| B. Adequate | 58.5 | 37.3 | 62.1 | 55.9 |
| C. Inferior | 20.2 | 44.1 | 14.7 | 22.8 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 24. In your opinion, how adequate are the acoustics in this school? | | | | |
| A. Superior | 24.7 | 16.9 | 9.8 | 19.5 |
| B. Adequate | 52.0 | 61.0 | 66.3 | 57.3 |
| C. Inferior | 23.2 | 22.0 | 23.9 | 23.2 |
| 25. In your opinion, how adequate is the lighting in this school? | | | | |
| A. Superior | 50.5 | 25.4 | 16.3 | 37.0 |
| B. Adequate | 41.5 | 71.2 | 78.6 | 56.6 |
| C. Inferior | 8.0 | 3.4 | 5.1 | 6.4 |
| 26. In your opinion, how adequate is the atmosphere (temperature, humidity, and ventilation) in this school? | | | | |
| A. Superior | 8.5 | 8.6 | 6.2 | 7.9 |
| B. Adequate | 32.2 | 46.6 | 46.4 | 38.4 |
| C. Inferior | 59.3 | 44.8 | 47.4 | 53.7 |
| 27. In your opinion, how adequate are the washrooms in this school? | | | | |
| A. Superior | 8.0 | 15.3 | 7.0 | 8.9 |
| B. Adequate | 44.7 | 74.6 | 52.0 | 51.7 |
| C. Inferior | 47.2 | 10.2 | 41.0 | 39.4 |
| 28. In your opinion, how adequate are the drinking fountains/bubblers in this school? | | | | |
| A. Superior | 4.7 | 10.2 | 7.2 | 6.4 |
| B. Adequate | 72.1 | 72.9 | 59.8 | 68.8 |
| C. Inferior | 23.2 | 16.9 | 33.0 | 24.9 |
| 29. In your opinion, how adequate are the coat racks or hooks in this school? | | | | |
| A. Superior | 3.6 | 5.1 | 12.2 | 6.3 |
| B. Adequate | 45.9 | 40.7 | 66.3 | 50.7 |
| C. Inferior | 50.5 | 54.2 | 21.4 | 43.0 |
| 30. In your opinion, how adequate are the outside telephones in this school? | | | | |
| A. Superior | 12.2 | 7.8 | 4.9 | 9.6 |
| B. Adequate | 52.4 | 70.6 | 42.7 | 52.8 |
| C. Inferior | 35.4 | 21.6 | 52.4 | 37.6 |
| 31. In your opinion, how adequate are the inside telephones in this school? | | | | |
| A. Superior | 63.0 | 17.0 | 8.3 | 42.1 |
| B. Adequate | 33.5 | 66.0 | 63.1 | 46.0 |
| C. Inferior | 3.5 | 17.0 | 28.6 | 11.9 |
| 32. In your opinion, how adequate is your teacher preparation room? | | | | |
| A. Superior | 18.4 | 29.6 | 11.5 | 19.0 |
| B. Adequate | 54.0 | 51.9 | 65.4 | 55.1 |
| C. Inferior | 27.6 | 18.5 | 23.1 | 25.9 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 33. In your opinion, how adequate are the provisions for privacy in this school for you? | | | | |
| A. Superior | 5.1 | 7.0 | 4.5 | 5.3 |
| B. Adequate | 36.5 | 43.9 | 46.6 | 40.4 |
| C. Inferior | 58.4 | 49.1 | 48.9 | 54.4 |
| 34. In your opinion, how adequate is the amount of playground space at this school? | | | | |
| A. Superior | 57.1 | 35.1 | 24.5 | 44.5 |
| B. Adequate | 35.4 | 42.1 | 33.7 | 36.0 |
| C. Inferior | 7.6 | 22.8 | 41.8 | 19.5 |
| 35. In your opinion, how adequate are the playground facilities at this school? | | | | |
| A. Superior | 21.1 | 12.7 | 8.2 | 16.2 |
| B. Adequate | 46.9 | 40.0 | 36.1 | 42.8 |
| C. Inferior | 32.0 | 47.3 | 55.7 | 41.0 |

NOTE TO PRINCIPALS AND VICE-PRINCIPALS: SKIP TO QUESTION NO. 72.

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NOTE TO TEACHERS: MANY OF THE FOLLOWING QUESTIONS REFER TO YOUR TEACHING AREA/ CLASSROOM. IF YOU TEACH IN MORE THAN ONE AREA, ANSWER FOR THE ONE IN WHICH YOU SPEND MOST OF YOUR TIME. IF YOU SPEND EQUAL AMOUNTS OF TIME IN SEVERAL AREAS, ANSWER FOR THE ONE YOU ENTERED FIRST THIS WEEK.

| | | | | |
|---|---|---|---|---|
| 36. Please rate the location of your teaching area/classroom. | | | | |
| A. Superior | 35.8 | 20.4 | 29.7 | 31.6 |
| B. Adequate | 52.4 | 61.1 | 56.0 | 54.8 |
| C. Inferior | 11.8 | 18.5 | 14.3 | 13.6 |
| 37. Please rate the amount of floor area in your teaching area/classroom. | | | | |
| A. Superior | 23.7 | 18.5 | 23.4 | 22.8 |
| B. Adequate | 54.8 | 46.3 | 44.7 | 50.6 |
| C. Inferior | 21.5 | 35.2 | 31.9 | 26.6 |
| 38. Please rate the acoustics in your teaching area/classroom. | | | | |
| A. Superior | 21.4 | 13.0 | 10.8 | 17.1 |
| B. Adequate | 59.4 | 63.0 | 76.3 | 64.7 |
| C. Inferior | 19.3 | 24.1 | 12.9 | 18.3 |
| 39. Please rate the lighting in your teaching area/classroom. | | | | |
| A. Superior | 45.0 | 18.5 | 16.0 | 32.6 |
| B. Adequate | 46.6 | 70.4 | 74.5 | 58.2 |
| C. Inferior | 8.5 | 11.1 | 9.6 | 9.2 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 40. Please rate the floor covering in your teaching area/classroom. | | | | |
| A. Superior | 47.3 | 38.9 | 5.4 | 34.3 |
| B. Adequate | 40.9 | 40.7 | 56.5 | 45.2 |
| C. Inferior | 11.8 | 20.4 | 38.0 | 20.5 |
| 41. Please rate the windows in your teaching area/classroom. | | | | |
| A. Superior | 8.8 | 24.0 | 13.8 | 13.1 |
| B. Adequate | 44.9 | 54.0 | 56.4 | 50.2 |
| C. Inferior | 46.3 | 22.0 | 29.8 | 36.8 |
| 42. Please rate the number of electrical outlets in your teaching area/classroom. | | | | |
| A. Superior | 10.1 | 11.1 | 3.2 | 8.3 |
| B. Adequate | 52.1 | 57.4 | 36.8 | 48.7 |
| C. Inferior | 37.8 | 31.5 | 60.0 | 43.0 |
| 43. Is your classroom/teaching area too warm? | | | | |
| A. Often | 22.3 | 27.8 | 25.5 | 24.1 |
| B. Sometimes | 48.9 | 53.7 | 61.7 | 53.3 |
| C. Never | 28.7 | 18.5 | 12.8 | 22.6 |
| 44. Is your classroom/teaching area too cold? | | | | |
| A. Often | 30.3 | 13.0 | 11.7 | 22.3 |
| B. Sometimes | 52.1 | 53.7 | 50.0 | 51.8 |
| C. Never | 17.6 | 33.3 | 38.3 | 25.9 |
| 45. Is the air in your classroom/teaching area too dry? | | | | |
| A. Often | 51.6 | 59.3 | 27.4 | 46.0 |
| B. Sometimes | 32.4 | 33.3 | 46.3 | 36.5 |
| C. Never | 16.0 | 7.4 | 26.3 | 17.5 |
| 46. Is the air in your classroom/teaching area too damp? | | | | |
| A. Often | 3.7 | -- | 4.2 | 3.3 |
| B. Sometimes | 18.1 | 13.5 | 25.3 | 19.4 |
| C. Never | 78.2 | 86.5 | 70.5 | 77.3 |
| 47. Is your classroom/teaching area too noisy? | | | | |
| A. Often | 23.3 | 24.1 | 4.2 | 18.0 |
| B. Sometimes | 65.1 | 63.0 | 71.6 | 66.6 |
| C. Never | 11.6 | 13.0 | 24.2 | 15 |
| 48. For your method of teaching, please rate the adequacy of the cupboards/storage containers in your classroom/teaching area. | | | | |
| A. Superior | 9.8 | 9.4 | 22.3 | 13.3 |
| B. Adequate | 51.6 | 43.4 | 39.4 | 46.8 |
| C. Inferior | 38.6 | 47.2 | 38.3 | 39.9 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 49. For your method of teaching, please rate the adequacy of the tote boxes in your classroom/teaching area. | | | | |
| A. Superior | 9.8 | -- | 10.7 | 8.7 |
| B. Adequate | 51.0 | 69.2 | 64.3 | 55.1 |
| C. Inferior | 39.2 | 30.8 | 25.0 | 36.2 |
| 50. For your method of teaching, please rate the adequacy of the bookshelves/bookcases in your classroom/teaching area. | | | | |
| A. Superior | 16.9 | 7.4 | 19.1 | 16.0 |
| B. Adequate | 59.6 | 70.4 | 46.8 | 57.7 |
| C. Inferior | 23.6 | 22.2 | 34.0 | 26.4 |
| 51. For your method of teaching, please rate the adequacy of the chairs/cushions in your classroom/teaching area. | | | | |
| A. Superior | 17.3 | 7.5 | 5.8 | 12.6 |
| B. Adequate | 60.3 | 77.4 | 58.1 | 62.6 |
| C. Inferior | 22.3 | 15.1 | 36.0 | 24.8 |
| 52. For your method of teaching, please rate the adequacy of the tables/desks in your classroom/teaching area. | | | | |
| A. Superior | 10.8 | 11.1 | 16.1 | 12.3 |
| B. Adequate | 54.8 | 81.5 | 62.4 | 61.3 |
| C. Inferior | 34.4 | 7.4 | 21.5 | 26.4 |
| 53. For your method of teaching, please rate the adequacy of the screens/dividers in your classroom/teaching area. | | | | |
| A. Superior | 6.8 | 9.5 | 6.7 | 7.3 |
| B. Adequate | 44.9 | 57.1 | 51.1 | 48.8 |
| C. Inferior | 48.3 | 33.3 | 42.2 | 43.9 |
| 54. For your method of teaching, please rate the adequacy of the display surfaces in your classroom/teaching area. | | | | |
| A. Superior | 9.5 | 9.6 | 16.3 | 11.5 |
| B. Adequate | 31.4 | 53.8 | 62.0 | 44.1 |
| C. Inferior | 59.2 | 36.5 | 21.7 | 44.4 |
| 55. For your method of teaching, please rate the adequacy of the fixed sinks in your classroom/teaching area. | | | | |
| A. Superior | 16.0 | 28.1 | 26.6 | 20.8 |
| B. Adequate | 56.0 | 62.5 | 60.9 | 58.4 |
| C. Inferior | 28.0 | 9.4 | 12.5 | 20.8 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 56. For your method of teaching, please rate the adequacy of the chalkboard in your classroom/teaching area. | | | | |
| A. Superior | 12.6 | 13.0 | 25.9 | 16.4 |
| B. Adequate | 55.3 | 51.9 | 62.4 | 56.7 |
| C. Inferior | 32.1 | 35.2 | 11.8 | 26.8 |
| 57. For your method of teaching, how satisfied are you with the furniture, shelving, and storage units in your classroom/teaching area? | | | | |
| A. Very satisfied | 8.4 | 15.1 | 16.3 | 11.7 |
| B. Satisfied | 41.9 | 43.4 | 35.9 | 40.4 |
| C. Neither satisfied nor dissatisfied | 20.7 | 20.8 | 17.4 | 19.8 |
| D. Dissatisfied | 29.1 | 20.8 | 30.4 | 28.1 |
| E. Very dissatisfied | -- | -- | -- | -- |
| 58. On the average, how often do students view a film (either 16 or 8 mm.) in your classroom/teaching area? | | | | |
| A. Never | 22.8 | 16.7 | 6.3 | 17.2 |
| B. Sometimes, but less than once a month | 27.0 | 5.6 | 27.4 | 23.7 |
| C. 1-2 times a month | 18.5 | 22.2 | 17.9 | 18.9 |
| D. 3-4 times a month | 14.8 | 16.7 | 36.8 | 21.3 |
| E. 5 or more times a month | 16.9 | 38.9 | 11.6 | 18.9 |
| 59. On the average, how often do students view a TV program in your classroom/ teaching area? | | | | |
| A. Never | 40.7 | 25.9 | 40.0 | 38.2 |
| B. Sometimes, but less than once a month | 26.5 | 24.1 | 37.9 | 29.3 |
| C. 1-2 times a month | 13.2 | 5.6 | 7.4 | 10.4 |
| D. 3-4 times a month | 10.6 | 9.3 | 6.3 | 9.2 |
| E. 5 or more times a month | 9.0 | 35.2 | 8.4 | 13.0 |
| 60. On the average, how often do students use tape recorders or listening stations in your classroom/teaching area? | | | | |
| A. Never | 10.6 | 3.7 | 4.2 | 7.7 |
| B. Sometimes, but less than once a month | 14.8 | 13.0 | 12.6 | 13.9 |
| C. 1-2 times a month | 12.7 | 14.8 | 12.6 | 13.0 |
| D. 3-4 times a month | 9.5 | 13.0 | 11.6 | 10.7 |
| E. 5 or more times a month | 52.4 | 55.6 | 58.9 | 54.7 |
| 61. On the average, how often do students view filmstrips and/or slides in your classroom/teaching area? | | | | |
| A. Never | 11.1 | 5.6 | 2.1 | 7.7 |
| B. Sometimes, but less than once a month | 22.8 | 3.7 | 21.1 | 19.2 |
| C. 1-2 times a month | 20.1 | 18.5 | 22.1 | 20.4 |
| D. 3-4 times a month | 16.4 | 25.9 | 12.6 | 16.9 |
| E. 5 or more times a month | 29.6 | 46.3 | 42.1 | 35.8 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 62. On the average, how often do your students visit the school library/resource centre? | | | | |
| A. Less than once a week | 3.9 | 4.0 | 14.5 | 7.0 |
| B. 1-2 times a week | 37 9 | 44.0 | 54.2 | 43.7 |
| C. 3-4 times a week | 16.3 | 24.0 | 14.5 | 17.1 |
| D. 5 or more times a week | 41.8 | 28.0 | 16.9 | 32.2 |
| 63. On the average, how often do your students go on field trips? | | | | |
| A. Never | 0.6 | 2.0 | 3.3 | 1.6 |
| B. 1-2 times a year | 25.8 | 27.5 | 27.8 | 26.6 |
| C. 3-5 times a year | 46.6 | 41.2 | 40.0 | 43.7 |
| D. 6 or more times a year | 27.0 | 29.4 | 28.9 | 28.0 |
| 64. Since the school year began, how many times have you rearranged desks or tables in your classroom/teaching area? | | | | |
| A. 0 | 0.6 | 1.9 | 3.3 | 1.5 |
| B. 1-3 | 27.4 | 45.3 | 29.7 | 31.0 |
| C. 4-10 | 47.5 | 39.6 | 49.5 | 46.7 |
| D. 11 or more times this year | 24.6 | 13.2 | 17.6 | 20.7 |
| 65. Since the school year began, how many times have you opened or closed a folding or sliding wall between rooms or areas in your classroom/teaching area? | | | | |
| A. 0 | 70.1 | 50.0 | 84.6 | 68.1 |
| B. 1-3 | 14.0 | 33.3 | -- | 16.0 |
| C. 4-10 | 8.4 | 4.2 | -- | 6.9 |
| D. 11 or more times this year | 7.5 | 12.5 | 15.4 | 9.0 |
| 66. Since the school year began, how many times have you changed the heights of desks or tables in your classroom/teaching area? | | | | |
| A. 0 | 49.0 | 85.7 | 63.6 | 57.5 |
| B. 1-2 | 36.9 | 14.3 | 31.8 | 32.5 |
| C. 3-5 | 10.7 | -- | 2.3 | 7.5 |
| D. 6 or more times this year | 3.4 | -- | 2.3 | 2.6 |
| 67. Since the school year began, how many times have you changed the position of the shelves in the bookcases, cupboards, or storage bins in your classroom/ teaching area? | | | | |
| A. 0 | 14.0 | 24.0 | 42.4 | 21.6 |
| B. 1-3 | 53.9 | 48.0 | 42.4 | 50.5 |
| C. 4-10 | 24.2 | 18.0 | 8.5 | 19.9 |
| D. 11 or more times this year | 7.9 | 10.0 | 6.8 | 8.0 |

NOTE: QUESTIONS 68 - 71 REFER SPECIFICALLY TO SEF SCHOOLS.

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 68. Since the school year began, how many times have you changed the doors of the bookshelves, cupboards, or storage bins in your classroom/teaching area? | | | | |
| A. 0 | 70.7 | -- | -- | 69.7 |
| B. 1-2 times this year | 16.4 | -- | -- | 16.2 |
| C. 3-5 times this year | 8.6 | -- | 100.0 | 9.2 |
| D. 6 or more times this year | 4.3 | 100.0 | -- | 4.9 |
| 69. Since the school year began, how many times have you rearranged storage containers in your classroom/teaching area? | | | | |
| A. 0 | 10.1 | -- | 25.0 | 10.3 |
| B. 1-2 times this year | 32.6 | -- | 25.0 | 32.1 |
| C. 3-5 times this year | 36.5 | 50.0 | 25.0 | 36.4 |
| D. 6 or more times this year | 20.8 | 50.0 | 25.0 | 21.2 |
| 70. On the average, how often do you use a portable sink in your classroom/teaching area? | | | | |
| A. Never | 68.1 | 100.0 | 50.0 | 67.9 |
| B. Sometimes, but less than once a week | 14.1 | -- | -- | 13.6 |
| C. 1-4 times a week | 8.1 | -- | -- | 7.9 |
| D. 5 or more times a week | 9.6 | -- | 50.0 | 10.7 |
| 71. On the average, how often do you use an electric/electronic service column (free standing or wall mounted) in your classroom/teaching area? | | | | |
| A. Never | 19.7 | 100.0 | 50.0 | 20.6 |
| B. Sometimes, but less than once a week | 19.7 | -- | 50.0 | 20.0 |
| C. 1-4 times a week | 23.0 | -- | -- | 22.6 |
| D. 5 or more times a week | 37.5 | -- | -- | 36.8 |

NOTE: END OF SEF QUESTIONS

NOTE: PRINCIPALS AND VICE-PRINCIPALS CONTINUE HERE

| | | | | |
|---|---|---|---|---|
| 72. How much influence to bring about program changes in your school do you think the principal has? | | | | |
| A. A great deal | 36.6 | 37.0 | 35.0 | 36.2 |
| B. Quite a lot | 31.4 | 50.0 | 32.0 | 34.5 |
| C. Some | 25.3 | 9.3 | 27.0 | 23.3 |
| D. Little | 3.6 | -- | 4.0 | 3.2 |
| E. Very little | 3.1 | 3.7 | 2.0 | 2.9 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 73. How much influence to bring about program changes in your school do you think the teachers have? | | | | |
| A. A great deal | 30.5 | 25.9 | 26.0 | 30.7 |
| B. Quite a lot | 37.1 | 42.6 | 46.0 | 40.5 |
| C. Some | 22.7 | 14.8 | 24.0 | 21.8 |
| D. Little | 4.1 | 5.9 | 4.0 | 4.3 |
| E. Very little | 1.5 | 11.1 | -- | 2.6 |
| 74. How much influence to bring about program changes in your school do you think the students have? | | | | |
| A. A great deal | 8.8 | 5.6 | 8.0 | 8.1 |
| B. Quite a lot | 18.7 | 9.3 | 14.0 | 15.9 |
| C. Some | 43.5 | 33.3 | 37.0 | 40.1 |
| D. Little | 19.2 | 24.1 | 23.0 | 21.0 |
| E. Very little | 9.8 | 27.8 | 18.0 | 15.0 |
| 75. How much influence to bring about program changes in your school do you think the parents have? | | | | |
| A. A great deal | 3.1 | -- | 2.0 | 2.3 |
| B. Quite a lot | 10.5 | 5.6 | 9.0 | 9.3 |
| C. Some | 33.0 | 25.9 | 26.0 | 29.9 |
| D. Little | 30.4 | 31.5 | 32.0 | 31.0 |
| E. Very little | 23.0 | 37.0 | 31.0 | 27.5 |
| 76. How much change in program is needed at your school? | | | | |
| A. A great deal or quite a lot | 38.9 | 35.2 | 14.0 | 31.1 |
| B. Some | 49.5 | 53.7 | 59.0 | 52.9 |
| C. Little or very little | 11.6 | 11.1 | 27.0 | 16.0 |
| 77. How much influence to bring about program changes should the principal have? | | | | |
| A. A great deal | 14.6 | 18.5 | 22.0 | 17.3 |
| B. Quite a lot | 37.0 | 33.3 | 34.0 | 35.5 |
| C. Some | 43.2 | 40.7 | 40.0 | 41.9 |
| D. Little | 3.1 | 7.4 | 3.0 | 3.8 |
| E. Very little | 2.1 | -- | 1.0 | 1.4 |
| 78. How much influence to bring about program changes should the teachers have? | | | | |
| A. A great deal | 42.5 | 50.0 | 41.4 | 43.4 |
| B. Quite a lot | 48.2 | 44.4 | 47.5 | 47.4 |
| C. Some | 8.8 | 5.6 | 11.1 | 9.0 |
| D. Little | -- | -- | -- | -- |
| E. Very little | 0.5 | -- | -- | 0.3 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 79. How much influence to bring about program changes <u>should</u> the students have? | | | | |
| A. A great deal | 9.3 | 5.6 | 6.1 | 7.8 |
| B. Quite a lot | 23.8 | 18.5 | 15.2 | 20.5 |
| C. Some | 54.9 | 63.0 | 61.6 | 58.1 |
| D. Little | 8.3 | 5.6 | 11.1 | 8.7 |
| E. Very little | 3.6 | 7.4 | 6.1 | 4.9 |
| 80. How much influence to bring about program changes <u>should</u> the parents have? | | | | |
| A. A great deal | 2.1 | -- | 1.0 | 1.4 |
| B. Quite a lot | 11.4 | 7.4 | 4.1 | 8.7 |
| C. Some | 51.8 | 55.6 | 49.0 | 51.6 |
| D. Little | 23.3 | 25.9 | 32.7 | 26.4 |
| E. Very little | 11.4 | 11.1 | 13.3 | 11.9 |
| 81. Compared to other teachers in other schools, how much does the overall school program influence what you do with your pupils? | | | | |
| A. A great deal | 21.2 | 27.8 | 8.2 | 18.6 |
| B. Quite a lot | 38.9 | 18.5 | 24.5 | 31.6 |
| C. Some | 26.9 | 37.0 | 39.8 | 32.2 |
| D. A little | 5.2 | 9.3 | 14.3 | 8.4 |
| E. Very little | 7.8 | 7.4 | 13.3 | 9.3 |
| 82. On the average, how many hours do you spend in school <u>per day</u> teaching a class as a whole? (Not in small groups or as individuals) | | | | |
| A. Under two hours | 51.0 | 37.0 | 48.0 | 48.0 |
| B. 2-4 hours | 28.9 | 24.1 | 24.5 | 26.9 |
| C. 5 or more hours | 20.1 | 38.9 | 27.6 | 25.1 |
| 83. On the average, how many hours do you spend in school <u>per day</u> in small-group and individual instruction? | | | | |
| A. Under two hours | 28.0 | 48.1 | 40.0 | 34.6 |
| B. 2-4 hours | 59.1 | 33.3 | 44.0 | 50.7 |
| C. 5 or more hours | 13.0 | 18.5 | 16.0 | 14.7 |
| 84. How important to you is chalkboard as an instructional aid? | | | | |
| A. Important | 56.7 | 70.4 | 64.6 | 61.1 |
| B. Neither important nor unimportant | 22.2 | 18.5 | 22.2 | 21.6 |
| C. Unimportant | 21.1 | 11.1 | 13.1 | 17.3 |

| | | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|---|
| 85. | How important to you is the overhead projector as an instructional aid? | | | | |
| | A. Important | 35.9 | 57.4 | 24.2 | 35.9 |
| | B. Neither important nor unimportant | 39.6 | 31.5 | 41.4 | 38.8 |
| | C. Unimportant | 24.5 | 11.1 | 34.3 | 25.2 |
| 86. | How important to you are windows in your classroom/teaching area? | | | | |
| | A. Very important | 26.9 | 48.1 | 44.4 | 35.3 |
| | B. Important | 30.1 | 42.6 | 35.4 | 33.5 |
| | C. Neutral or unimportant | 43.0 | 9.3 | 20.2 | 31.2 |
| 87. | Where do you do <u>most</u> of your planning? | | | | |
| | A. At school | 66.1 | 66.7 | 51.0 | 61.7 |
| | B. At home | 33.9 | 33.3 | 49.0 | 38.3 |
| 88. | Compared to other teachers you know, how much do you like the fully enclosed classroom? | | | | |
| | A. I like it | 40.9 | 48.1 | 76.8 | 52.3 |
| | B. I neither like it nor dislike it | 26.4 | 22.2 | 18.2 | 23.4 |
| | C. I dislike it | 32.6 | 29.6 | 5.1 | 24.3 |
| 89. | Compared to other teachers you know, rate your own teaching style. | | | | |
| | A. Very progressive or uniquely different | 9.4 | 13.0 | 9.3 | 9.9 |
| | B. Moderately progressive | 68.1 | 57.4 | 55.7 | 62.9 |
| | C. Traditional | 22.5 | 29.6 | 35.1 | 27.2 |
| 90. | How easy is it for you to integrate new methods or materials into your regular pattern of teaching? | | | | |
| | A. Very easy | 28.0 | 28.3 | 21.2 | 26.1 |
| | B. Easy | 40.4 | 26.4 | 49.5 | 40.9 |
| | C. Neutral or difficult | 31.6 | 45.3 | 29.3 | 33.0 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 91. How old are you? | | | | |
| A. 29 and younger | 70.9 | 64.4 | 66.3 | 68.6 |
| B. 30 and over | 29.1 | 35.6 | 33.7 | 31.4 |
| 92. How many students per teacher are there in your classroom/teaching area? | | | | |
| A. 24 or less | 32.7 | 27.1 | 26.7 | 30.1 |
| B. 25 or more | 67.3 | 72.9 | 73.3 | 69.9 |
| 93. On the average, how many hours per week do you spend planning and preparing your program? | | | | |
| A. 5 hours or less | 46.3 | 45.6 | 29.7 | 41.6 |
| B. 6 hours or more | 53.7 | 54.4 | 70.3 | 58.4 |
| 94. On the average, how many hours per week do you spend in joint planning with other teachers? | | | | |
| A. 0-2 hours per week | 69.1 | 77.2 | 84.2 | 74.6 |
| B. 3 or more hours | 30.9 | 22.8 | 15.8 | 25.4 |
| 95. How many schools have you visited since September 1970? | | | | |
| A. 2 or less schools | 77.2 | 83.1 | 66.3 | 75.1 |
| B. 3 or more schools | 22.8 | 16.9 | 33.7 | 24.9 |
| 96. How many open space schools have you visited since September, 1970? | | | | |
| A. 2 or less | 89.8 | 86.4 | 97.0 | 91.3 |
| B. 3 or more | 10.2 | 13.6 | 3.0 | 8.7 |
| 97. How many years experience do you have | | | | |
| A. 1 or less | 15.5 | 16.9 | 15.8 | 15.8 |
| B. 2 to 6 years | 44.2 | 40.7 | 43.6 | 43.4 |
| C. 7 or more years | 40.3 | 42.4 | 40.6 | 40.7 |
| 98. How many years of university have you had? | | | | |
| A. One year or less | 56.3 | 57.6 | 62.4 | 58.2 |
| B. Two or more years | 43.7 | 42.4 | 37.6 | 41.8 |
| 99. What degrees do you now hold? | | | | |
| A. No degrees | 68.9 | 78.0 | 76.2 | 72.4 |
| B. One or more degrees | 31.1 | 22.0 | 23.8 | 27.6 |

a) Read over the list.

b) Select the characteristic which, in your opinion, is MOST IMPORTANT for an IDEAL school to have and enter the corresponding number in the uppermost box.

IT MAY HELP TO STRIKE OUT EACH STATEMENT AFTER IT HAS BEEN USED.

c) Select the next two most important characteristics and enter the appropriate numbers in the second row of boxes.

d) Now, reverse your perspective and select the LEAST IMPORTANT characteristic for an IDEAL school and enter the number in the last box.

e) Fill in the second row from the bottom by selecting the next two least important characteristics from the remaining five.

f) Enter the four remaining numbers in the middle row.

## THE IDEAL SCHOOL BUILDING

103. Visual privacy

104. Noise control

105. Generous amount of floor area

106. Generous outdoor play area

107. Convenient layout

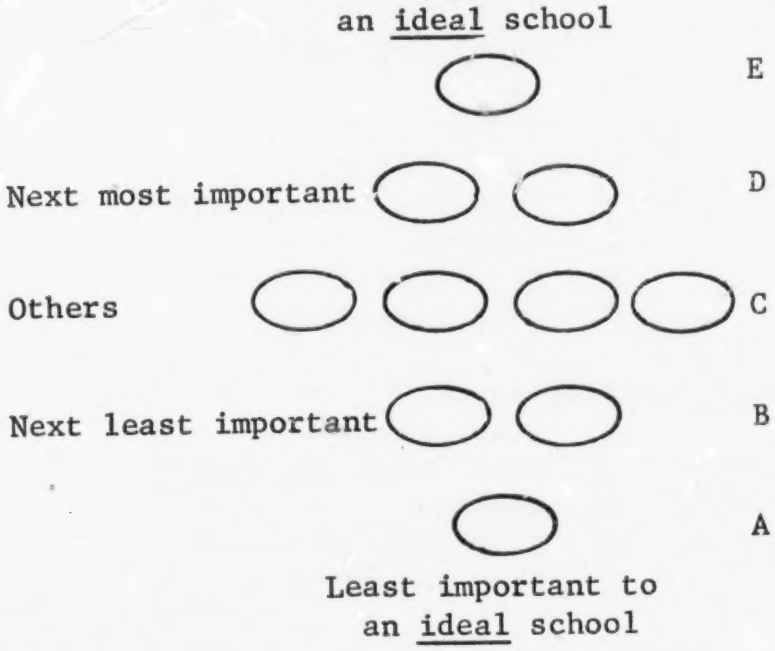
108. Attractive appearance

109. Abundant, versatile storage

110. Plenty of electrical outlets

111. Comfortable temperature, humidity and ventilation

112. Sturdy relocatable furniture




Note: The percentage frequencies by school type for these 10 items are on the next two pages.

THE IDEAL SCHOOL BUILDING

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 103. Visual privacy | | | | |
| A. Least important | 34.5 | 37.9 | 30.0 | 33.8 |
| B. Next least important | 20.4 | 31.0 | 37.0 | 26.6 |
| C. Neutral | 25.2 | 17.2 | 19.0 | 22.3 |
| D. Next most important | 16.0 | 10.3 | 9.0 | 13.2 |
| E. Most important | 3.9 | 3.4 | 5.0 | 4.1 |
| 104. Noise control | | | | |
| A. Least important | 0.5 | -- | 6.0 | 1.9 |
| B. Next least important | 12.1 | 19.0 | 16.0 | 14.3 |
| C. Neutral | 35.4 | 22.4 | 37.0 | 33.8 |
| D. Next most important | 30.1 | 31.0 | 22.0 | 28.0 |
| E. Most important | 21.8 | 27.6 | 19.0 | 22.0 |
| 105. Generous amount of floor area | | | | |
| A. Least important | 1.5 | 1.8 | -- | 1.1 |
| B. Next least important | 6.8 | 3.5 | 5.0 | 5.8 |
| C. Neutral | 33.5 | 22.8 | 28.0 | 30.3 |
| D. Next most important | 34.0 | 40.4 | 41.0 | 36.9 |
| E. Most important | 24.3 | 31.6 | 26.0 | 25.9 |
| 106. Generous outdoor play area | | | | |
| A. Least important | 10.8 | 12.1 | 6.0 | 9.7 |
| B. Next least important | 25.6 | 22.4 | 23.0 | 24.4 |
| C. Neutral | 53.7 | 62.1 | 60.0 | 56.8 |
| D. Next most important | 9.9 | 3.4 | 11.0 | 9.1 |
| E. Most important | -- | -- | -- | -- |
| 107. Convenient layout | | | | |
| A. Least important | 2.0 | 1.7 | 2.0 | 1.9 |
| B. Next least important | 10.2 | 3.4 | 13.0 | 9.9 |
| C. Neutral | 31.2 | 24.1 | 34.0 | 30.9 |
| D. Next most important | 30.7 | 50.0 | 25.0 | 32.2 |
| E. Most important | 25.9 | 20.7 | 26.0 | 25.1 |
| 108. Attractive appearance | | | | |
| A. Least important | 18.0 | 19.0 | 22.0 | 19.3 |
| B. Next least important | 27.8 | 22.4 | 28.0 | 27.0 |
| C. Neutral | 32.2 | 39.7 | 34.0 | 33.9 |
| D. Next most important | 19.0 | 10.3 | 12.0 | 15.7 |
| E. Most important | 2.9 | 8.6 | 4.0 | 4.1 |
| 109. Abundant, versatile storage | | | | |
| A. Least important | 4.4 | 1.7 | 7.0 | 4.7 |
| B. Next least important | 29.4 | 22.4 | 13.0 | 23.8 |
| C. Neutral | 55.9 | 65.5 | 58.0 | 58.0 |
| D. Next most important | 9.3 | 8.6 | 20.0 | 12.2 |
| E. Most important | 1.0 | 1.7 | 2.0 | 1.4 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 110. Plenty of electrical outlets | | | | |
| A. Least important | 20.6 | 22.4 | 20.0 | 20.7 |
| B. Next least important | 36.8 | 27.6 | 32.0 | 34.0 |
| C. Neutral | 39.2 | 50.0 | 47.0 | 43.1 |
| D. Next most important | 3.4 | -- | 1.0 | 2.2 |
| E. Most important | -- | -- | -- | -- |
| 111. Comfortable temperature, humidity and ventilation | | | | |
| A. Least important | 1.0 | 1.7 | -- | 0.8 |
| B. Next least important | 5.8 | 11.9 | 10.0 | 7.9 |
| C. Neutral | 44.7 | 50.8 | 42.0 | 44.9 |
| D. Next most important | 33.5 | 27.1 | 36.0 | 33.2 |
| E. Most important | 15.0 | 8.5 | 12.0 | 13.2 |
| 112. Sturdy relocatable furniture | | | | |
| A. Least important | 7.8 | 3.4 | 8.0 | 7.2 |
| B. Next least important | 24.5 | 33.9 | 20.0 | 24.8 |
| C. Neutral | 52.0 | 44.1 | 44.0 | 48.5 |
| D. Next most important | 13.2 | 15.3 | 23.0 | 16.3 |
| E. Most important | 2.5 | 3.4 | 5.0 | 3.3 |

Now, using the same characteristics and the same procedure, indicate how these characteristics apply to the school you are now in. Select first those features which are most adequate in your school, then those features which are worst in your school, and finally, fill in the middle row.

YOUR SCHOOL BUILDING

113. Visual privacy
114. Noise control
115. Generous amount of floor area
116. Generous outdoor play area
117. Convenient layout
118. Attractive appearance
119. Abundant, versatile storage
120. Plenty of electrical outlets
121. Comfortable temperature, humidity and ventilation
122. Sturdy relocatable furniture

Most adequate feature in your school

E

Next most adequate ○ ○ D

Others ○ ○ ○ ○ C

Next least adequate ○ ○ B

○ A

Least adequate feature in your school

Note: The percentage frequencies by school type for these 10 items are on the next two pages.

ACTUAL SCHOOL BUILDING

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 113. Visual privacy | | | | |
| A. Least adequate | 20.0 | 20.3 | 5.0 | 15.9 |
| B. Next least adequate | 26.8 | 28.8 | 12.0 | 23.1 |
| C. Neutral | 46.8 | 35.6 | 31.0 | 40.7 |
| D. Next most adequate | 4.9 | 13.6 | 22.0 | 11.0 |
| E. Most adequate | 1.5 | 1.7 | 30.0 | 9.3 |
| 114. Noise control | | | | |
| A. Least adequate | 14.1 | 20.3 | 4.0 | 12.3 |
| B. Next least adequate | 23.3 | 25.4 | 15.0 | 21.4 |
| C. Neutral | 47.6 | 42.4 | 42.0 | 45.2 |
| D. Next most adequate | 14.6 | 8.5 | 33.0 | 18.6 |
| E. Most adequate | 0.5 | 3.4 | 6.0 | 2.5 |
| 115. Generous amount of floor area | | | | |
| A. Least adequate | 4.9 | 19.0 | 6.0 | 7.4 |
| B. Next least adequate | 10.2 | 15.5 | 17.0 | 12.9 |
| C. Neutral | 28.3 | 31.0 | 30.0 | 29.2 |
| D. Next most adequate | 30.7 | 19.0 | 23.0 | 26.7 |
| E. Most adequate | 25.9 | 15.5 | 24.0 | 23.7 |
| 116. Generous outdoor play area | | | | |
| A. Least adequate | 2.4 | 3.4 | 9.0 | 4.4 |
| B. Next least adequate | 4.4 | 13.8 | 19.0 | 9.9 |
| C. Neutral | 35.6 | 51.7 | 42.0 | 39.9 |
| D. Next most adequate | 31.2 | 22.4 | 18.0 | 26.2 |
| E. Most adequate | 26.3 | 8.6 | 12.0 | 19.6 |
| 117. Convenient layout | | | | |
| A. Least adequate | 6.8 | 5.2 | 6.0 | 6.3 |
| B. Next least adequate | 10.7 | 19.0 | 11.0 | 12.1 |
| C. Neutral | 40.5 | 39.7 | 52.0 | 43.5 |
| D. Next most adequate | 24.4 | 29.3 | 21.0 | 24.2 |
| E. Most adequate | 17.6 | 6.9 | 10.0 | 13.8 |
| 118. Attractive appearance | | | | |
| A. Least adequate | 3.4 | -- | 9.0 | 4.4 |
| B. Next least adequate | 10.7 | 1.8 | 15.0 | 10.5 |
| C. Neutral | 39.5 | 24.6 | 59.0 | 42.5 |
| D. Next most adequate | 30.2 | 29.8 | 11.0 | 24.9 |
| E. Most adequate | 16.1 | 43.9 | 6.0 | 17.7 |
| 119. Abundant, versatile storage | | | | |
| A. Least adequate | 8.7 | 3.5 | 13.0 | 9.1 |
| B. Next least adequate | 26.7 | 36.8 | 25.0 | 27.8 |
| C. Neutral | 49.0 | 47.4 | 43.0 | 47.1 |
| D. Next most adequate | 13.1 | 12.3 | 18.0 | 14.3 |
| E. Most adequate | 2.4 | -- | 1.0 | 1.7 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 120. Plenty of electrical outlets | | | | |
| A. Least adequate | 6.8 | 7.1 | 21.0 | 10.8 |
| B. Next least adequate | 27.8 | 16.1 | 38.0 | 28.8 |
| C. Neutral | 44.4 | 51.8 | 30.0 | 41.6 |
| D. Next most adequate | 20.0 | 23.2 | 11.0 | 18.0 |
| E. Most adequate | 1.0 | 1.8 | -- | 0.8 |
| 121. Comfortable temperature, humidity, and ventilation | | | | |
| A. Least adequate | 26.2 | 17.5 | 20.0 | 23.1 |
| B. Next least adequate | 31.1 | 28.1 | 29.0 | 30.0 |
| C. Neutral | 29.1 | 38.6 | 35.0 | 32.2 |
| D. Next most adequate | 9.7 | 8.8 | 13.0 | 10.5 |
| E. Most adequate | 3.9 | 7.0 | 3.0 | 4.1 |
| 122. Sturdy, relocatable furniture | | | | |
| A. Least adequate | 6.4 | -- | 5.0 | 5.0 |
| B. Next least adequate | 23.6 | 10.3 | 12.0 | 18.3 |
| C. Neutral | 49.8 | 44.8 | 48.0 | 48.5 |
| D. Next most adequate | 16.7 | 32.8 | 29.0 | 22.7 |
| E. Most adequate | 3.4 | 12.1 | 6.0 | 5.5 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 123. Imagine you are talking to the architect of this building. What would you tell him is most satisfactory about it? | | | | |
| A. Appearance - colors, visual warmth | 18.0 | 44.1 | 2.0 | 17.8 |
| B. Lighting - brightness | 14.6 | 10.2 | 10.9 | 12.8 |
| C. Layout, spaciousness, openness, space, roominess | 35.0 | 18.6 | 45.5 | 35.2 |
| D. Carpeting | 4.9 | 6.8 | -- | 3.8 |
| E. Furniture - portable, excluding chairs | 1.0 | -- | -- | 0.5 |
| F. Resource centre, library | 4.9 | 8.5 | -- | 4.1 |
| G. Gym, gym flooring | 1.5 | 3.4 | 3.0 | 2.2 |
| H. Air conditioning, atmospheric system, heating | 0.5 | -- | 2.0 | 0.8 |
| I. Teacher prep. room, workroom | 1.0 | 1.7 | 7.9 | 3.0 |
| J. Acoustics - noise control | 5.3 | 1.7 | 3.0 | 4.1 |
| K. Electronic poles, communication system | 1.5 | -- | -- | 0.8 |
| L. Versatility - flexibility of areas | 1.5 | -- | -- | 0.8 |
| M. Outdoor play area | 2.9 | -- | 3.0 | 2.5 |
| N. Privacy, closed rooms (traditional schools) | -- | -- | 4.0 | 1.1 |
| O. Wall display areas, blackboards | -- | -- | 5.0 | 1.4 |
| P. Shelves, storage areas, cupboards | 1.5 | -- | 4.0 | 1.9 |
| Q. Solid, sturdy building | -- | -- | 2.0 | 0.5 |
| R. Location | -- | -- | 1.0 | 0.3 |
| S. Uncodeable into previous categories | 1.5 | 3.4 | 1.0 | 1.6 |
| T. No response - blank | 4.9 | 1.7 | 5.9 | 4.6 |
| 124. Most unsatisfactory about it? | | | | |
| A. Noise - stairwell - acoustics | 6.4 | 1.7 | 4.0 | 5.0 |
| B. Open space, lack of walls, lack of enclosure | 5.9 | 1.7 | -- | 3.6 |
| C. Crowdedness, density, too little floor area | 5.4 | 29.3 | 12.0 | 11.0 |
| D. Resource centre, size, location, equipment | 10.8 | 13.8 | 11.0 | 11.3 |
| E. Atmosphere, climate, temperature, humidity | 9.8 | 8.6 | 8.0 | 9.1 |
| F. Lack of display surfaces, insufficient blackboards | 6.9 | 1.7 | -- | 4.1 |
| G. Interior appearance - color - general appearance | 1.5 | -- | 2.0 | 1.4 |
| H. Exterior appearance | 7.8 | 1.7 | -- | 4.7 |
| I. Windows, few, small, shape, monotony, high | 7.4 | 1.7 | 6.0 | 6.1 |
| J. Furniture, excluding chairs and tote boxes | 2.0 | -- | 1.0 | 1.4 |
| K. Chairs | -- | -- | -- | -- |
| L. Tote boxes, too small, too impersonal | -- | -- | -- | -- |
| M. Sinks, too many, too few, location, no hot water, none, areas should be tiled | 2.0 | 6.9 | 5.0 | 3.6 |
| N. Chalkboard - amount, location, color | 2.0 | -- | -- | 1.1 |
| O. Washrooms, too few, too many, location | 13.7 | 10.3 | 13.0 | 13.0 |
| P. Coat storage, rubbers, trays, coat hooks | 4.9 | 5.2 | 3.0 | 4.4 |
| Q. Yard, grounds, play areas, outdoor space | -- | 1.7 | 5.0 | |
| R. Electric outlets, phones | | | | |
| S. Uncodeable into previous categories | | | | |
| T. No response - blank | | | | |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 125. List at least one improvement or addition to the furniture and casework you now have which would help your program. | | | | |
| A. No improvement needed, OK | 2.0 | 1.7 | 4.0 | 2.5 |
| B. Chairs, more; tables (round or trapezoidal, with drawers or shelves) | 7.9 | 6.9 | 11.1 | 8.6 |
| C. Surfaces hard to clean - white, stains, marks, scratches | 7.9 | -- | -- | 4.4 |
| D. Tote boxes - too small, absurd, useless, more | 3.4 | 5.2 | -- | 2.8 |
| E. Shelves - more, different, wall shelving, stick | 14.8 | 32.8 | 23.2 | 20.0 |
| F. Want desks for children, in varied colors and shapes with drawers | 2.5 | 3.4 | 4.0 | 3.1 |
| G. Want more adjustability, flexibility, easier to move, casters | 11.8 | 1.7 | 12.1 | 10.3 |
| H. Want more stability, sturdiness, rigidity, immobility | 4.9 | 1.7 | -- | 3.1 |
| I. Tack boards and cork boards for display, and blackboards | 11.3 | 3.4 | 5.1 | 8.3 |
| J. Panels, dividers, unstable, hard to clean, hard to move, more | 3.0 | 10.3 | 4.0 | 4.4 |
| K. Doors, hinges, locks | 3.9 | 5.2 | 2.0 | 3.6 |
| L. Card catalogue | 1.0 | -- | -- | 0.6 |
| M. Sinks, more, fewer, fixed, mobile, permanent | 1.5 | 1.7 | 2.0 | 1.7 |
| N. Coat hooks, racks, hangers, lockers, boot trays | 4.9 | -- | 2.0 | 3.3 |
| Q. Bookcases, one-sided, two-sided - portable in traditional schools | 3.0 | 1.7 | 6.1 | 3.6 |
| P. Separators, bookends | 1.0 | -- | -- | 0.6 |
| Q. General quality, better | 2.0 | 3.4 | 1.0 | 1.9 |
| R. Less expensive, less costly, more economical | -- | -- | -- | -- |
| S. Uncodeable into previous categories | 5.9 | 6.9 | 15.2 | 8.6 |
| T. No response - blank | 7.4 | 13.8 | 8.1 | 8.6 |
| 126. Imagine you are talking to a teacher who is going to teach in open space for the first time. What advice would you give him? | | | | |
| A. Stay out, Don't try, don't be silly | 1.5 | 1.7 | -- | 1.5 |
| B. Be patient, go slowly, don't expect too much | 9.3 | 1.7 | -- | 7.6 |
| C. Be tolerant, considerate, kind, able to work, relate to other teachers | 13.7 | 17.2 | -- | 14.5 |
| D. Be willing to change, accept change, be flexible, compromise | 26.0 | 22.4 | -- | 25.2 |
| E. Plan, organize, schedule | 10.3 | 17.2 | -- | 11.8 |
| F. Discipline, control kids, establish routines | 9.3 | 6.9 | -- | 8.8 |
| G. Work hard, long hours, buckle down | 1.0 | -- | -- | 0.8 |
| H. Enjoy it, relax, stay loose | 2.9 | -- | -- | 2.3 |
| I. Other answers | 8.8 | 17.2 | -- | 10.7 |
| J. No response - blank | 16.2 | 15.5 | -- | 16.0 |

NEIGHBOR AND PARENT QUESTIONNAIRE

Frequency of response by type of school. Some response categories have been combined or omitted.

| Question No. | | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|---|
| 1. | Name of school | | | | |
| 2. | Type of school | | | | |
| | 1. SEF - new & replacement | | | | |
| | 2. Non-SEF open plan | | | | |
| | 3. Non-SEF traditional plan | | | | |
| 3. | Identify respondent | | | | |
| | 1. Female parent | 29.0 | 27.8 | 28.7 | 28.6 |
| | 2. Male parent | 21.6 | 25.1 | 21.6 | 22.6 |
| | 3. Female neighbor | 28.0 | 23.2 | 22.3 | 25.3 |
| | 4. Male neighbor | 21.3 | 23.7 | 27.3 | 23.4 |
| 4. | Type of accommodation | | | | |
| | 1. Free-standing, single-family dwelling | 45.6 | 57.6 | 37.1 | 46.4 |
| | 2. Duplex, triplex, town house, row housing | 30.7 | 42.4 | 42.7 | 36.6 |
| | 3. Apartment (more than three suites) and high-rise apartment (five storeys or more) | 23.7 | -- | 20.3 | 17.0 |
| 5. | How many years have you lived in this neighborhood? | | | | |
| | 1. Less than two | 37.6 | 85.0 | 21.0 | 45.6 |
| | 2. 3-5 | 33.1 | 12.2 | 30.8 | 27.2 |
| | 3. 6 or more | 29.3 | 2.7 | 48.3 | 27.2 |
| 6. | Compared to other schools you know, how much do you like the outside appearance of _____ school? | | | | |
| | 1. More | 42.3 | 60.8 | 8.6 | 38.6 |
| | 2. Same | 35.0 | 32.3 | 70.3 | 43.1 |
| | 3. Less or not at all | 22.7 | 6.9 | 21.1 | 18.3 |
| 7. | How often do you drive or walk past _____ school? | | | | |
| | 1. One or more times a day (often) | 19.9 | 25.2 | 21.7 | 21.7 |
| | 2. 1-6 times a week or 2-3 times a month (sometimes) | 53.7 | 45.6 | 42.7 | 48.9 |
| | 3. 1-11 times a year or never (rarely or never) | 26.5 | 29.3 | 35.7 | 29.5 |
| 8. | Since September 1970, have you been inside any other schools than _____? | | | | |
| | 0. None | 64.9 | 46.3 | 65.0 | 60.2 |
| | 1. One other school | 23.5 | 27.2 | 24.5 | 24.7 |
| | 2. More than one other | 11.6 | 26.5 | 10.5 | 15.1 |

| Question No. | | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|---|
| 9. | Since Sept. 1970, have you been inside ____ school for parent interviews? | | | | |
| | 1. Yes | 35.0 | 33.3 | 37.8 | 35.2 |
| | 2. No | 65.0 | 66.7 | 62.2 | 64.8 |
| 10. | Since Sept. 1970, have you been inside ____ school for an open house? | | | | |
| | 1. Yes | 35.8 | 42.9 | 30.1 | 36.2 |
| | 2. No | 64.2 | 57.1 | 69.9 | 63.8 |
| 11. | Since Sept. 1970, have you been inside ____ school for any other purposes? | | | | |
| | 1. Yes | 36.8 | 50.3 | 24.5 | 37.2 |
| | 2. No | 63.2 | 49.7 | 75.5 | 62.8 |
| 12. | What were some of the other reasons or occasions? | | | | |
| | A. Community activity | 33.0 | 50.7 | 54.3 | 42.8 |
| | B. School activity or school sponsored activity | 67.0 | 49.3 | 45.7 | 57.2 |
| 13. | In total, how often have you been inside ____ school since September 1970? | | | | |
| | 0. = 0 | -- | -- | -- | -- |
| | 1. = 1-3times | 60.7 | 57.6 | 67.6 | 61.4 |
| | 2. = 4-19 times | 39.3 | 42.4 | 32.4 | 38.6 |
| | IF NEVER, SKIP TO 19. | | | | |
| 14. | Compared to other schools you know, how much do you like the inside appearance of _____ school? | | | | |
| | 1. More | 83.7 | 78.5 | 13.2 | 66.6 |
| | 2. Same; Less; Not at all | 16.3 | 21.5 | 86.8 | 33.4 |
| 15. | Compared to other schools you know, how well is _____ school equipped for children's programs? | | | | |
| | 1. Better | 74.0 | 73.3 | 15.3 | 60.5 |
| | 2. Same; Worse | 26.0 | 26.7 | 84.7 | 39.5 |
| 16. | In your opinion, does ____ school need any additional furniture or equipment to make it more satisfactory for children's programs? | | | | |
| | 1. Yes | 10.9 | 14.5 | 21.2 | 14.3 |
| | 2. No | 89.1 | 85.5 | 78.8 | 85.7 |

| Question No. | | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|---|
| 16A. | Code for probing additional child equipment | | | | |
| A. | 1. Have everything already | 31.2 | 55.6 | 20.0 | 41.5 |
| B. | 2. No TV or teaching aids | 6.2 | 3.7 | -- | 3.8 |
| C. | 3. Need furniture and equipment | 12.5 | 3.7 | 60.0 | 17.0 |
| D. | 4. Need library and resource equipment | 12.5 | 11.1 | -- | 9.4 |
| E. | 5. Playground and sports equipment | 37.5 | 14.8 | -- | 18.9 |
| F. | 6. Need lunchroom facilities | -- | -- | 10.0 | 1.9 |
| G. | 7. Get rid of portables | -- | -- | 10.0 | 1.9 |
| H. | 8. Walls | -- | 7.4 | -- | 3.8 |
| I. | 9. Quiet areas | -- | 3.7 | -- | 1.9 |
| 17. | Compared to other schools you know, how well is _____ school equipped for adult use? | | | | |
| | 1. Better | 36.0 | 29.3 | 6.7 | 27.6 |
| | 2. Same | 39.0 | 46.6 | 80.0 | 50.2 |
| | 3. Worse | 25.0 | 24.1 | 13.3 | 22.2 |
| 17A. | Code for probing response to how well equipped for adult use. | | | | |
| A. | 1. No facilities for adult use | 55.6 | 50.0 | 66.7 | 55.0 |
| B. | 2. Need sports equipment | 11.1 | 12.5 | -- | 10.0 |
| C. | 3. No adult programs and facilities | -- | 12.5 | 33.3 | 10.0 |
| D. | 4. Good gym | 22.2 | 12.5 | -- | 15.0 |
| E. | 5. Good AV and air conditioning | 11.1 | -- | -- | 5.0 |
| F. | 6. TV is provided | -- | 12.5 | -- | 5.0 |
| 18. | In your opinion, does _____ school need any additional furniture or equipment to make it more satisfactory for adult use? | | | | |
| | 1. Yes | 27.4 | 39.0 | 45.5 | 35.3 |
| | 2. No | 72.6 | 61.0 | 54.5 | 64.7 |
| 18A. | Code for probe additional adult equipment | | | | |
| A. | 1. Ash trays and coat racks | 16.7 | -- | 44.4 | 18.2 |
| B. | 2. Badminton nets | 8.3 | -- | -- | 3.0 |
| C. | 3. Larger gym and showers and pool | 16.7 | 41.7 | -- | 21.2 |
| D. | 4. Better provisions for adults and information on activity | 33.3 | 50.0 | 44.4 | 42.4 |
| E. | 5. Sewing M/C & workshop | 8.3 | -- | -- | 3.0 |
| F. | 6. Furniture | 16.7 | 8.3 | 11.1 | 12.1 |
| 19. | Do you think you get enough information about the school program? | | | | |
| | 1. Yes | 79.5 | 71.8 | 82.1 | 77.9 |
| | 2. No | 20.5 | 28.2 | 17.9 | 22.1 |

| Question No. | | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|---|
| 20. | In your opinion, who should be able to use school buildings outside of school hours? | | | | |
| | 1. Children and teachers | 12.2 | 7.1 | 9.1 | 10.1 |
| | 2. Children and teachers and parents | 9.5 | 7.9 | 14.4 | 10.3 |
| | 3. All members of the community | 78.3 | 85.0 | 76.5 | 79.6 |
| 20A. | Code for probe for school use | | | | |
| | 0. No reply | 53.8 | 71.8 | 45.5 | 56.4 |
| A. | 1. Restraints and qualifications to use | 3.0 | -- | 9.9 | 3.9 |
| B. | 2. Use it because we are paying taxes | 23.3 | 12.2 | 9.9 | 17.4 |
| C. | 3. Need a community building | 19.9 | 16.0 | 34.7 | 22.4 |
| 21. | When a school is kept open for use by the community, who should pay the extra cost (janitors, lights, etc.)? | | | | |
| | 1. The school board | 25.9 | 21.2 | 29.5 | 25.6 |
| | 2. The people who use it | 37.0 | 42.3 | 44.6 | 40.5 |
| | 3. Both the board and the people who use it | 37.0 | 36.5 | 25.9 | 33.9 |
| 22. | In your opinion, when should the school building be open for use by the community? | | | | |
| | 1. Never | 13.3 | 2.3 | 13.2 | 10.4 |
| | 2. Evenings and weekends by permit | 75.0 | 90.1 | 75.4 | 79.0 |
| | 3. Evenings and weekends without permit and anytime including school hours | 11.7 | 7.6 | 11.4 | 10.6 |
| 23. | How much change <u>can</u> you bring about in _____ school? | | | | |
| | 1. Quite a bit; some | 27.1 | 17.2 | 10.3 | 20.1 |
| | 2. Little or none | 72.9 | 82.8 | 89.7 | 79.9 |
| 24. | How much change <u>should</u> you be able to bring about in _____ school? | | | | |
| | 1. Quite a bit; some | 53.4 | 48.8 | 39.3 | 48.5 |
| | 2. Little or none | 46.6 | 51.2 | 60.7 | 51.5 |
| 25. | In your opinion, <u>how much change</u> is needed in ____ school? | | | | |
| | 1. Quite a bit; some | 22.2 | 33.3 | 23.5 | 25.8 |
| | 2. Little or none | 77.8 | 66.7 | 76.5 | 74.2 |
| 26. | Do you feel free to visit your child's class during school hours? | | | | |
| | 1. Yes | 57.7 | 85.5 | 61.9 | 66.8 |
| | 2. No | 42.3 | 14.5 | 38.1 | 33.2 |
| 27. | Would you like to take part in regular school activities? | | | | |
| | 1. I do take part in regular school activities | 4.9 | 15.0 | 6.4 | 7.9 |
| | 2. Yes, I would like to | 24.6 | 32.1 | 28.0 | 27.4 |
| | 3. No, I would not like to | 70.5 | 52.9 | 65.6 | 64.7 |

| Question No. | | | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|---|---|
| INTERVIEWER: JUST A FEW MORE SHORT QUESTIONS | | | | | | |
| 28. | Please name two of your school trustees. | | | | | |
| | 1. | Two or one correct names | 18.0 | 11.1 | 2.1 | 12.3 |
| | 2. | Incorrect names; DK; | 82.0 | 88.9 | 97.9 | 87.7 |
| 29. | Who is the school principal? | | | | | |
| | 1. | Correct name | 37.3 | 40.6 | 33.8 | 37.3 |
| | 2. | Incorrect name; DK | 62.7 | 59.4 | 66.2 | 62.7 |
| 30. | How many of your children attend ----- School? | | | | | |
| | 1. | One | 44.9 | 38.6 | 31.4 | 39.6 |
| | 2. | Two | 35.4 | 47.0 | 32.9 | 38.2 |
| | 3. | Three or more | 19.7 | 14.5 | 35.7 | 22.1 |
| 31. | Finally, what one thing would you like us to tell the school board for you? | | | | | |
| | 0. | No comment or uncodeable | | | | |
| A. | 1. | Pleased; attractive school; I like the system; like open plan; good luck | 37.4 | 22.4 | 17.6 | 27.7 |
| B. | 2. | Taxes too high; extravagances, cut administration costs | 16.3 | 16.5 | 17.6 | 16.7 |
| C. | 3. | Community use; recreation programs; adult programs and children's programs; day care and junior kindergarten | 14.6 | 16.5 | 35.1 | 20.6 |
| D. | 4. | Improve and extend facilities--equipment, appearance, etc. | 9.8 | 4.7 | 6.8 | 7.4 |
| E. | 5. | Discipline necessary; prefers traditional school; dislikes too much freedom; better teaching; report cards; homework; more basics. | 13.8 | 30.6 | 18.9 | 20.2 |
| F. | 6. | Poor communication; want more parent teacher meetings; more information including info in different languages. | 8.1 | 9.4 | 4.1 | 7.4 |

ROOM INACCESSIBLE
OBSERVATION INCOMPLETE
Teachers left _____
Students left _____

OBSERVATION RECORD
Long Form
April - May, 1971

Appendix I - 4

School Name _____( ) COLUMN 1,2
School Type _____( ) 3,4
Week, Day & Time _____( ) 5,6
Space No. _____( ) 7,8,10
Space Type _____( ) 11,12
Observation No. _____( ) 13,14
Observer _____( ) 15

| | | | |
|---|---|---|---|
| 1. | OCCUPIED? 1. YES 2. NO | 1 2 | 16 |
| 2. | PATTERN? 1. HIGH DEFINITION 2. LOW DEFINITION 3. COMBINATION | 1 2 3 | 17 |
| 3. | FOCAL POINT: 0. NONE 1. ONE 2. SEVERAL | 0 1 2 | 18 |
| 4. | NOISE LEVEL? 1. LOW 2. MEDIUM 3. HIGH | 1 2 3 | 19 |
| 5. | NO. OF DISTINCT NOISES? 0. NONE 1. ONE 2. TWO 3. THREE 4. FOUR PLUS | 0 1 2 3 4 | 20 |
| 6. | NO. OF ADULTS? 0. NONE 1. ONE 2. TWO 3. THREE PLUS | 0 1 2 3 | 21 |
| 7. | ADULT NO. 1 ACTIVITY | | |
| | a. TALKING & LISTENING TO STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 22 |
| | b. TALKING TO STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 23 |
| | c. LISTENING TO STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 24 |
| | d. TALKING WITH ADULT(S) ONLY? 1. YES 2. NO 3. N/A | 1 2 3 | 25 |
| | e. OBSERVING STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 26 |
| | f. WORKING ALONE? 1. YES 2. NO 3. N/A | 1 2 3 | 27 |
| | g. OTHER? 1. YES (IF YES, SPECIFY) _____ 2. NO 3. N/A | 1 2 3 | 28 |
| 8. | ADULT NO. 2 ACTIVITY | | |
| | a. TALKING & LISTENING TO STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 29 |
| | b. TALKING TO STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 30 |
| | c. LISTENING TO STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 31 |
| | d. TALKING WITH ADULT(S) ONLY? 1. YES 2. NO 3. N/A | 1 2 3 | 32 |
| | e. OBSERVING STUDENT(S)? 1. YES 2. NO 3. N/A | 1 2 3 | 33 |
| | f. WORKING ALONE? 1. YES 2. NO 3. N/A | 1 2 3 | 34 |
| | g. OTHER? 1. YES (IF YES, SPECIFY) _____ 2. NO 3. N/A | 1 2 3 | 35 |
| 9. | PROXIMITY? 1. PERSONAL 2. CONVENTIONAL 3. DISTANT | 1 2 3 | 36 |
| 10. | ATMOSPHERE? 1. FORMAL 2. NEUTRAL 3. INFORMAL | 1 2 3 | 37 |
| 11. | NO. OF STUDENTS? 0. NONE 1. 1-5 2. 6-12 3. 13-20 4. 21-35 5. 36-50 6. 51 PLUS | 0 1 2 3 4 5 6 | 38 |
| 12. | MOVEMENT? 0. NONE 1. MODERATE 2. CONSIDERABLE | 0 1 2 | 39 |
| 13. | NO. OF CLUSTERS? 0. NONE 1. ONE 2. 2-3 3. 4-7 4. 8 PLUS | 0 1 2 3 4 | 40 |
| 14. | SIZE OF LARGEST CLUSTER? 0. NONE 1. 1-3 2. 4-8 3. 9-12 4. 13-20 5. 21-35 6. 36 PLUS | 0 1 2 3 4 5 6 | 41 |
| 15. | NO. NOT IN ANY CLUSTER? 0. NONE 1. 1-2 2. 3-5 3. 6-10 4. 11 PLUS | 0 1 2 3 4 | 42 |
| 16. | NO. ON FLOOR? 0. NONE 1. 1-3 2. 4-8 3. 9-12 4. 13-20 5. 21-35 6. 36 PLUS | 0 1 2 3 4 5 6 | 43 |
| 17. | NO. AT CARRELS? (INSERT RAW NUMBER UNLESS THERE ARE NO CARRELS IN THE AREA. IF NO CARRELS, INSERT #99) | _____ | 44,45 |
| 18. | ADULTS' TOOLS? | | |
| | a. FIXED MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 46 |
| | b. PORTABLE MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 47 |
| | c. MANIPULATIVE CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 48 |
| | d. MANIPULATIVE NON-CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 49 |
| | e. SELF-POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 50 |
| | f. POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 51 |
| 19. | STUDENTS' TOOLS? | | |
| | a. FIXED MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 52 |
| | b. PORTABLE MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 53 |
| | c. MANIPULATIVE CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 54 |
| | d. MANIPULATIVE NON-CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 55 |
| | e. SELF-POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 56 |
| | f. POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 57 |
| 20. | OBSERVER'S NAME (PLEASE SIGN) _____ | | |

Only the following observation answers have been analyzed by type of school.

OBSERVATION RECORD

Long Form

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 2. Pattern | | | | |
| 1. High definition | 12.7 | 4.6 | 33.9 | 17.7 |
| 2. Combination | 49.1 | 68.5 | 37.5 | 50.8 |
| 3. Low definition | 38.1 | 26.9 | 28.6 | 31.6 |
| 3. Focal Point | | | | |
| 1. None or one | 46.9 | 67.1 | 68.9 | 60.4 |
| 2. Several | 53.1 | 32.9 | 31.1 | 39.6 |
| 4. Noise Level | | | | |
| 1. Low | 31.1 | 42.8 | 58.6 | 44.0 |
| 2. Medium | 52.0 | 41.3 | 31.8 | 41.9 |
| 3. High | 16.8 | 16.0 | 9.6 | 14.1 |
| 5. Number of distinct noises | | | | |
| 1. None | 10.5 | 8.2 | 14.7 | 11.3 |
| 2. One or two | 37.7 | 57.9 | 65.8 | 53.3 |
| 3. Three or more | 51.9 | 33.9 | 19.6 | 35.5 |
| 9. Proximity | | | | |
| 1. Distant | 29.0 | 42.5 | 36.7 | 35.4 |
| 2. Conventional | 41.9 | 44.2 | 44.3 | 43.4 |
| 3. Personal | 29.1 | 13.2 | 19.0 | 21.2 |
| 10. Atmosphere | | | | |
| 1. Formal | 9.6 | 13.5 | 19.9 | 14.5 |
| 2. Neutral | 35.4 | 48.4 | 45.5 | 42.5 |
| 3. Informal | 55.0 | 38.1 | 34.6 | 43.0 |
| 11. Number of students | | | | |
| 1. One to 12 | 18.3 | 22.1 | 8.0 | 15.9 |
| 2. 13 - 20 | 23.3 | 21.5 | 14.3 | 19.7 |
| 3. 21 plus | 58.3 | 56.4 | 77.7 | 64.4 |
| 12. Movement | | | | |
| 1. None | 39.2 | 53.5 | 60.4 | 50.7 |
| 2. Moderate | 50.5 | 36.0 | 31.9 | 39.8 |
| 3. Considerable | 10.3 | 10.5 | 7.7 | 9.5 |
| 13. Number of clusters | | | | |
| 1. One | 25.5 | 31.0 | 40.0 | 32.0 |
| 2. 2 - 3 | 30.2 | 27.0 | 26.0 | 27.8 |
| 3. 4 plus | 44.3 | 41.9 | 34.0 | 40.1 |

| | SEF % | NSO % | NST % | Total % |
|---|---|---|---|---|
| 14. Size of largest cluster | 64.6 | 60.0 | 44.1 | 56.3 |
| 1. One - 8 | 24.1 | 20.0 | 25.1 | 23.2 |
| 2. 9 - 20 | 11.3 | 20.0 | 30.9 | 20.5 |
| 3. 21 plus | | | | |
| 15. Number not in any cluster | | | | |
| 0. None | 21.9 | 31.5 | 37.8 | 30.2 |
| 1. One - 2 | 29.5 | 42.0 | 34.0 | 34.7 |
| 2. 3 plus | 48.7 | 26.5 | 28.2 | 35.1 |
| 16. Number on floor | | | | |
| 0. None | 42.1 | 51.7 | 60.8 | 51.4 |
| 1. One - 8 | 33.6 | 27.0 | 19.3 | 26.7 |
| 2. 9 plus | 24.3 | 21.3 | 19.8 | 21.9 |
| 7. Adult activity | | | | |
| 1. Not engaged with students | 23.0 | 26.1 | 30.4 | 26.6 |
| 2. Engaged with students | 77.0 | 73.9 | 69.6 | 73.4 |
| 19. Variety of student tools per observation | | | | |
| 1. Low (0 or 1) | 30.3 | 54.9 | 57.3 | 46.8 |
| 2. Medium (2) | 21.3 | 24.3 | 19.3 | 21.5 |
| 3. High (3 - 6) | 48.3 | 20.8 | 23.4 | 31.7 |

SEF ACADEMIC EVALUATION

April - May, 1971

ROOM INACCESSIBLE

OBSERVATION INCOMPLETE

Teachers left _____

Students left _____

OBSERVATION RECORD

Short Form

APPENDIX I - 5

| | | COLUMN |
|---|---|---|
| School Name _____ | ( ) | 1,2 |
| School Type _____ | ( ) | 3,4 |
| Week, Day & Time _____ | ( ) | 5,6 |
| Space No. _____ | ( ) | 7,8,10 |
| Space Type _____ | ( ) | 11,12 |
| Observation No. _____ | ( ) | 13,14 |
| Observer _____ | ( ) | 15 |

| | | |
|---|---|---|
| 1. OCCUPIED? 1. YES 2. NO | 1 2 | 16 |
| 2. NO. OF ADULTS? 0. NONE 1. ONE 2. TWO 3. THREE PLUS | 0 1 2 3 | 21 |
| 3. NO. OF STUDENTS? 0. NONE 1. 1-5 2. 6-12 3. 13-20 4. 21-35 5. 36-50 6. 51 PLUS | 0 1 2 3 4 5 6 | 38 |
| 4. ADULTS' TOOLS? | | |
| a. FIXED MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 46 |
| b. PORTABLE MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 47 |
| c. MANIPULATIVE CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 48 |
| d. MANIPULATIVE NON-CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 49 |
| e. SELF-POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 50 |
| f. POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 51 |
| 5. STUDENTS' TOOLS? | | |
| a. FIXED MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 52 |
| b. PORTABLE MARKING OR READING? 1. YES 2. NO 3. N/A | 1 2 3 | 53 |
| c. MANIPULATIVE CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 54 |
| d. MANIPULATIVE NON-CYCLICAL? 1. YES 2. NO 3. N/A | 1 2 3 | 55 |
| e. SELF-POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 56 |
| f. POWERED? 1. YES 2. NO 3. N/A | 1 2 3 | 57 |
| 6. UNUSUAL USE? 1. YES (IF YES, SPECIFY) _____ 2. NO | | 58 |
| 7. OBSERVER'S NAME (PLEASE SIGN) _____ | | |

Note: The short form was not analyzed by type of school.

# APPENDIX II

Charts to illustrate comparative satisfaction: actual vs. ideal school building

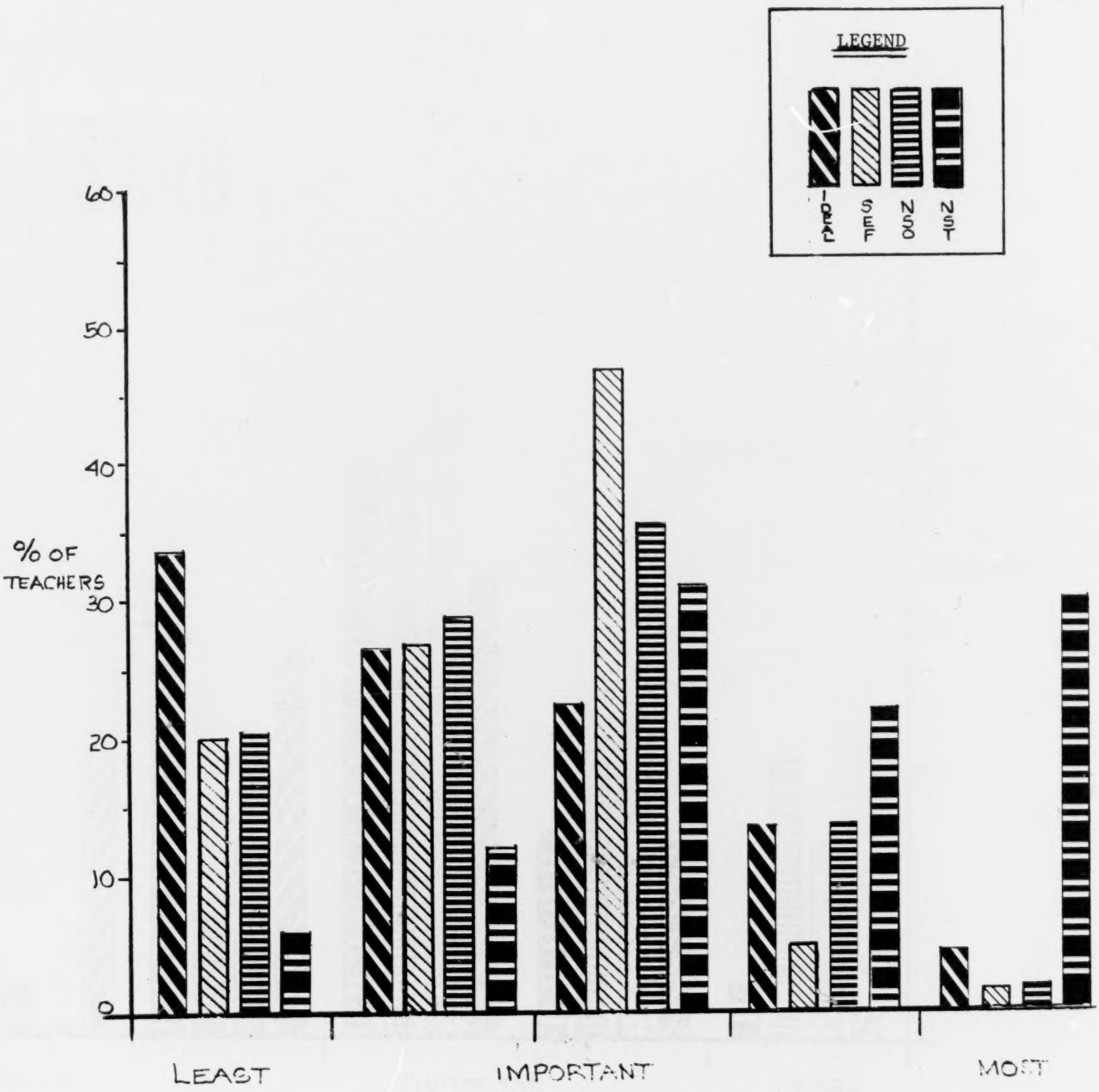



CHART #1 IMPORTANCE OF VISUAL PRIVACY AND ITS ADEQUACY BY SCHOOL TYPE

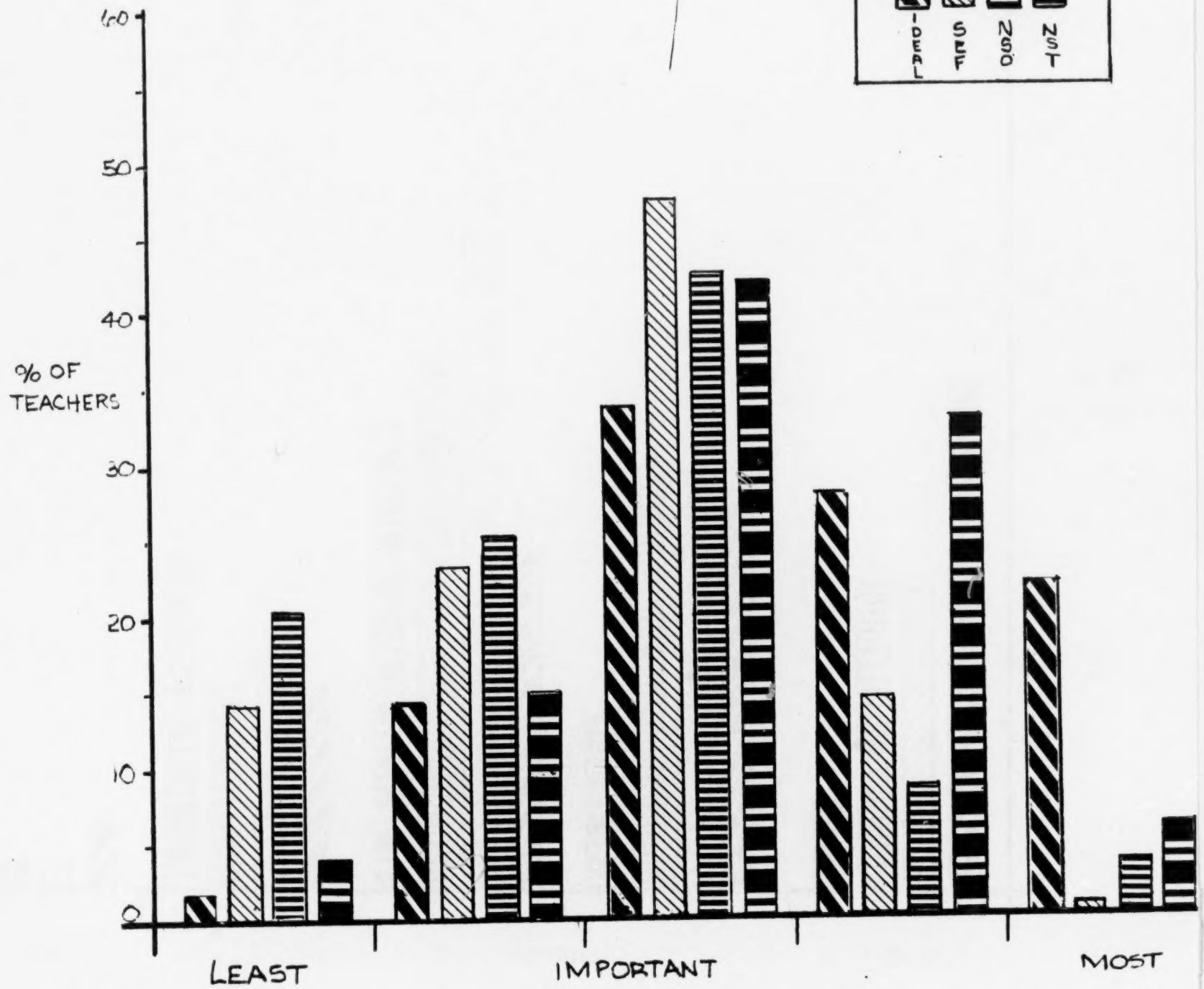



CHART #2 IMPORTANCE OF NOISE CONTROL AND ITS ADEQUACY BY SCHOOL TYPE

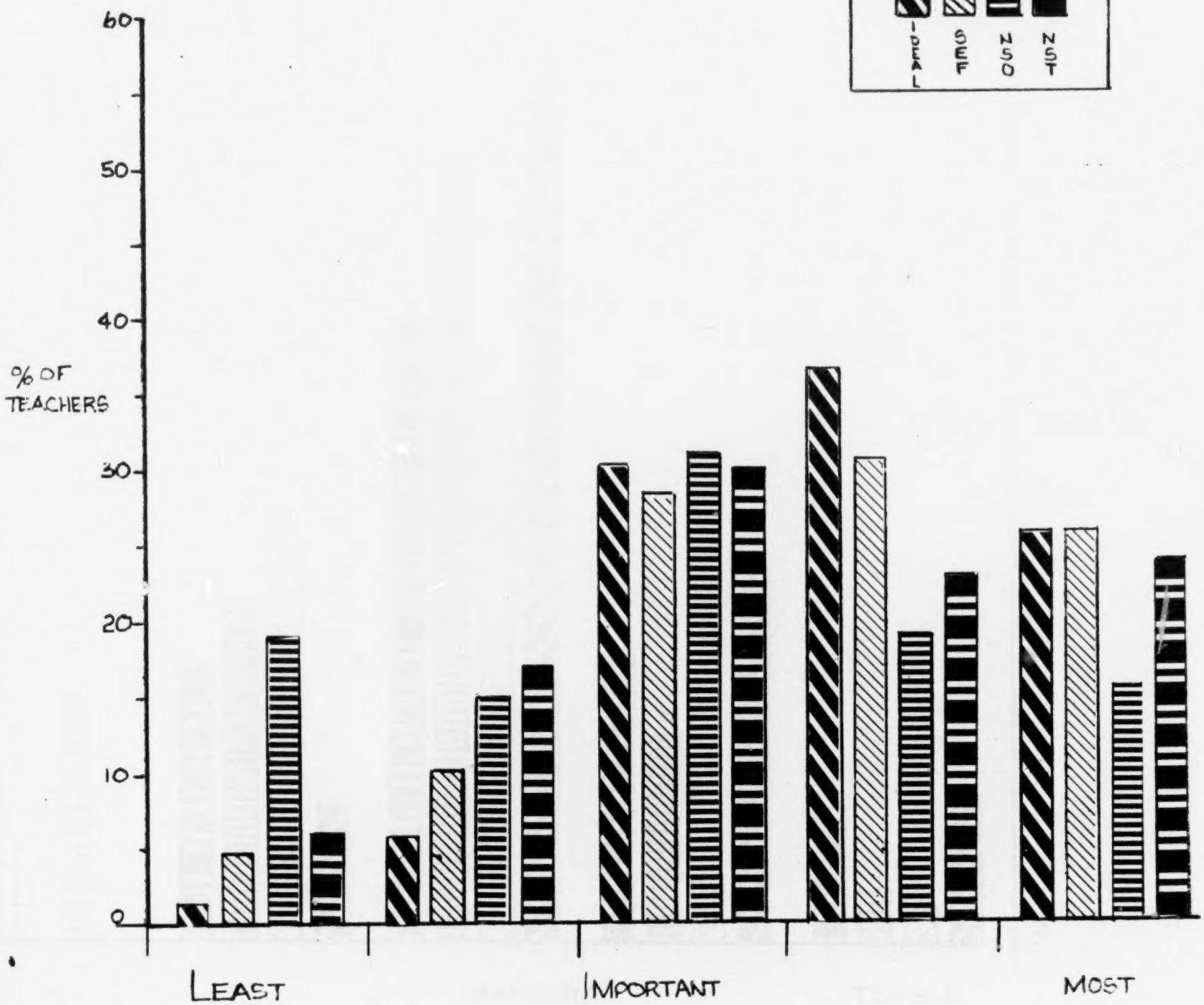



CHART #3 IMPORTANCE OF AMOUNT OF FLOOR AREA AND ITS ADEQUACY BY SCHOOL TYPE

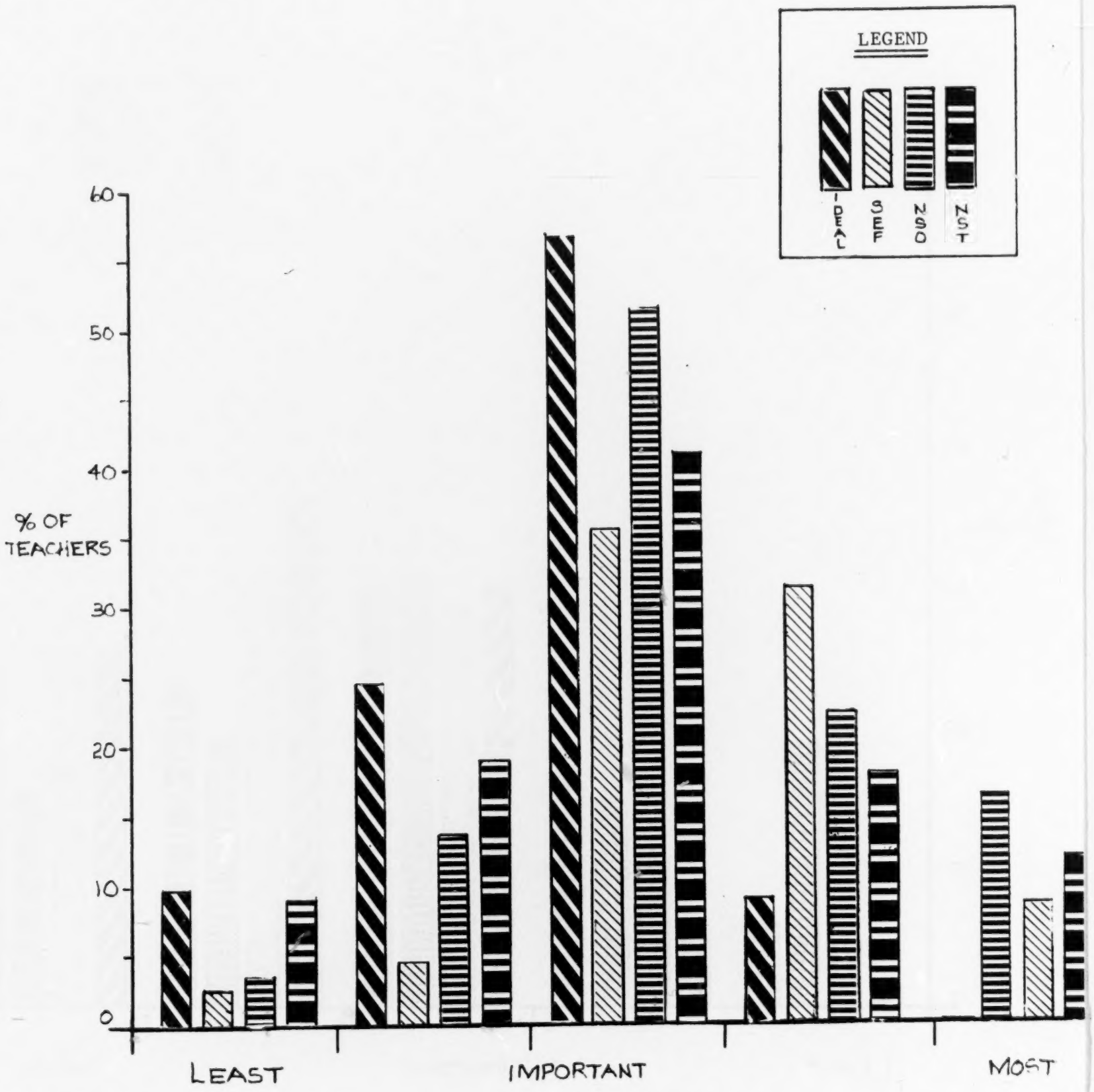



CHART #4 IMPORTANCE OF OUTDOOR PLAY AREA AND ITS ADEQUACY BY SCHOOL TYPE

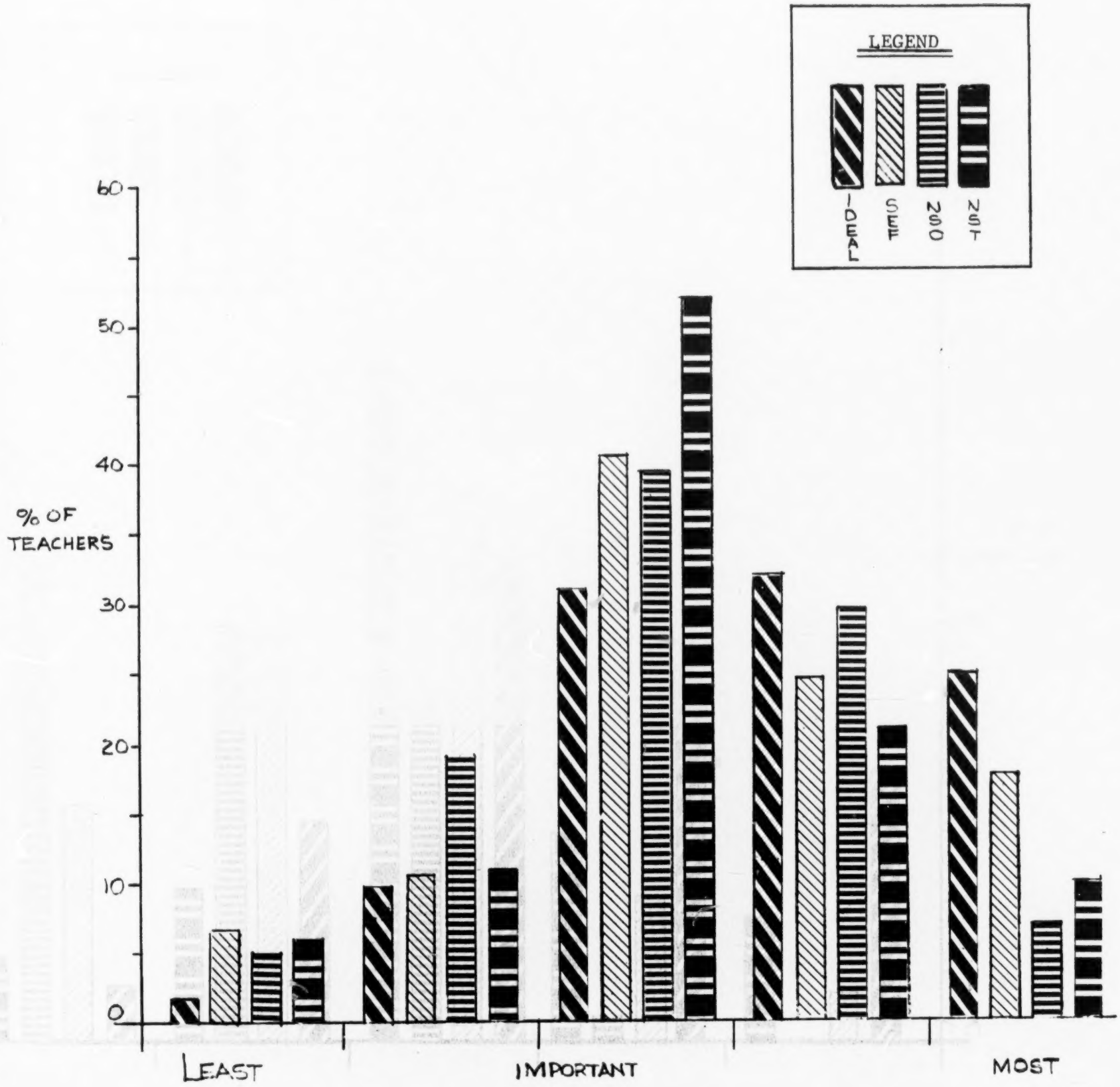



CHART # 5 IMPORTANCE OF CONVENIENT LAYOUT AND ITS ADEQUACY BY SCHOOL TYPE

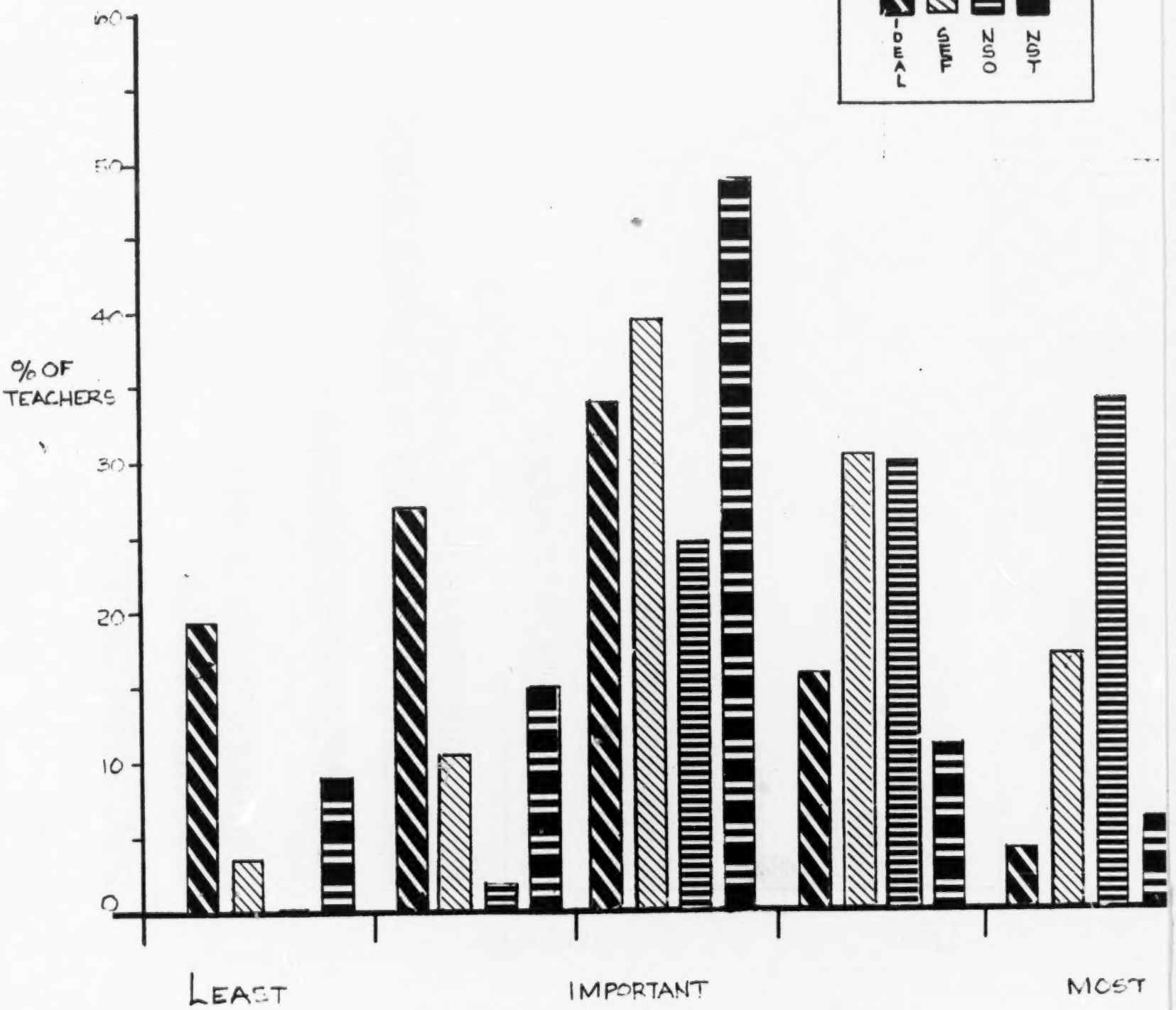



CHART #6 IMPORTANCE OF ATTRACTIVE APPEARANCE AND ITS ADEQUACY BY SCHOOL TYPE

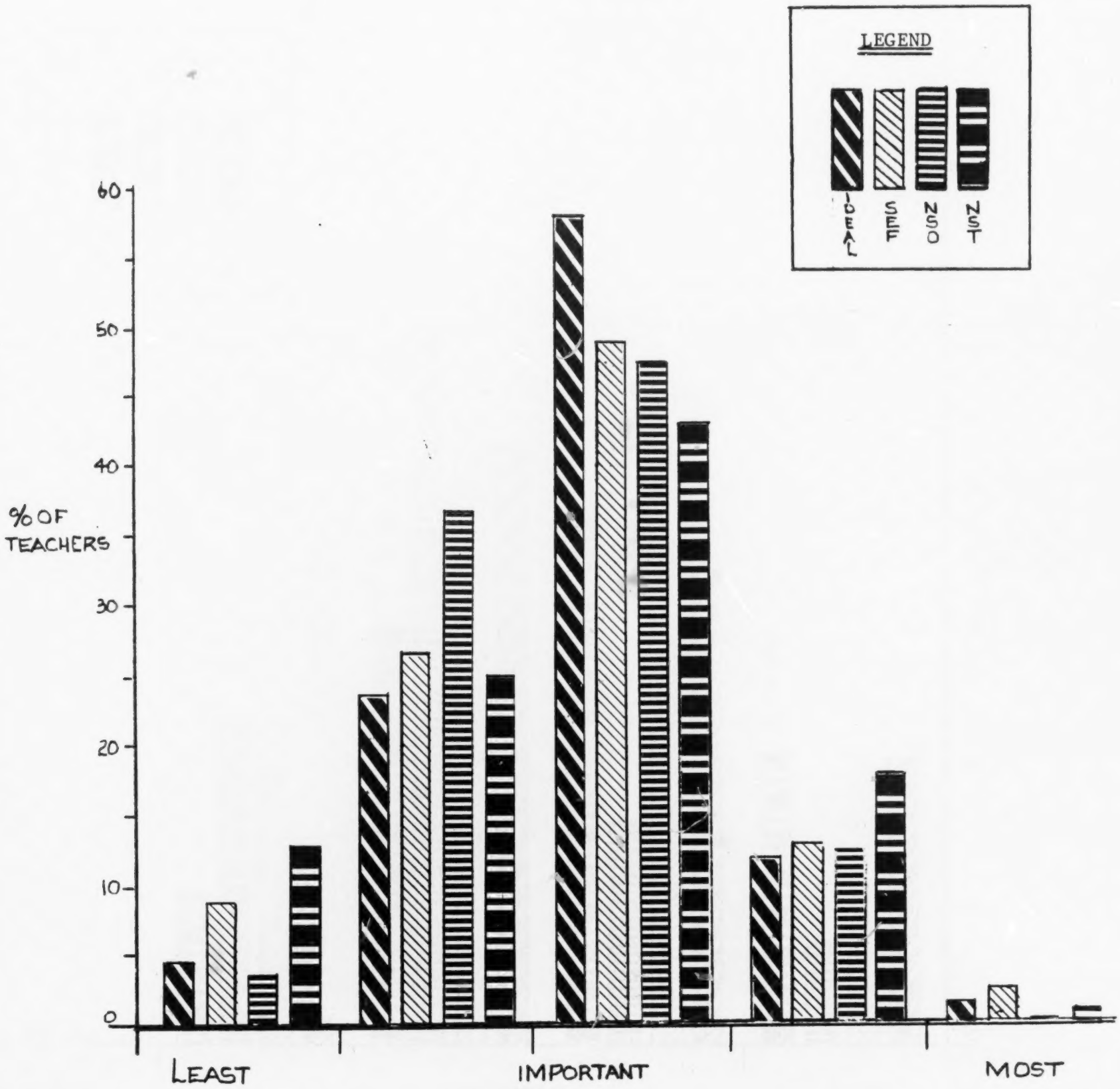



CHART #7 IMPORTANCE OF ABUNDANT STORAGE AND ITS ADEQUACY BY SCHOOL TYPE

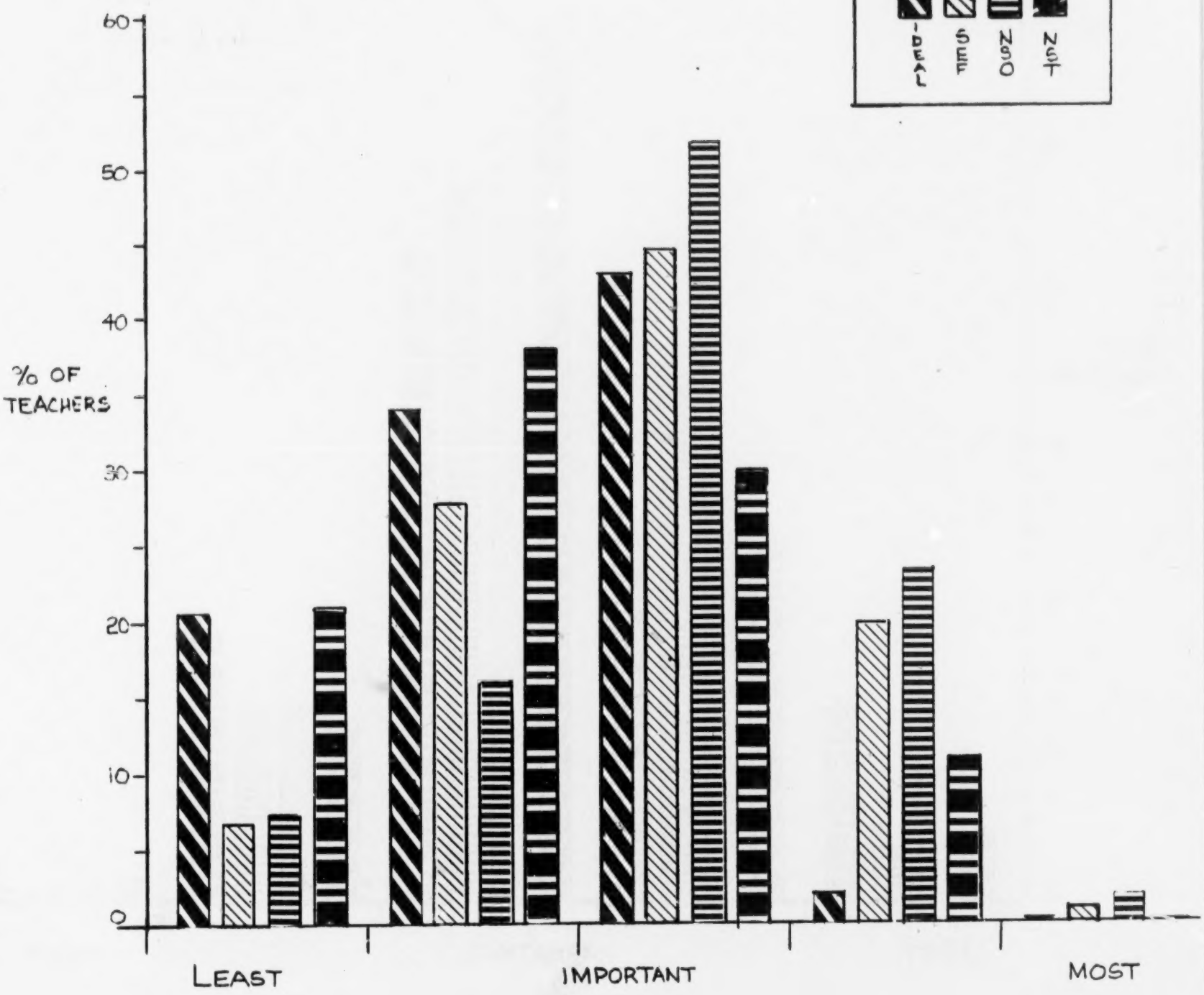
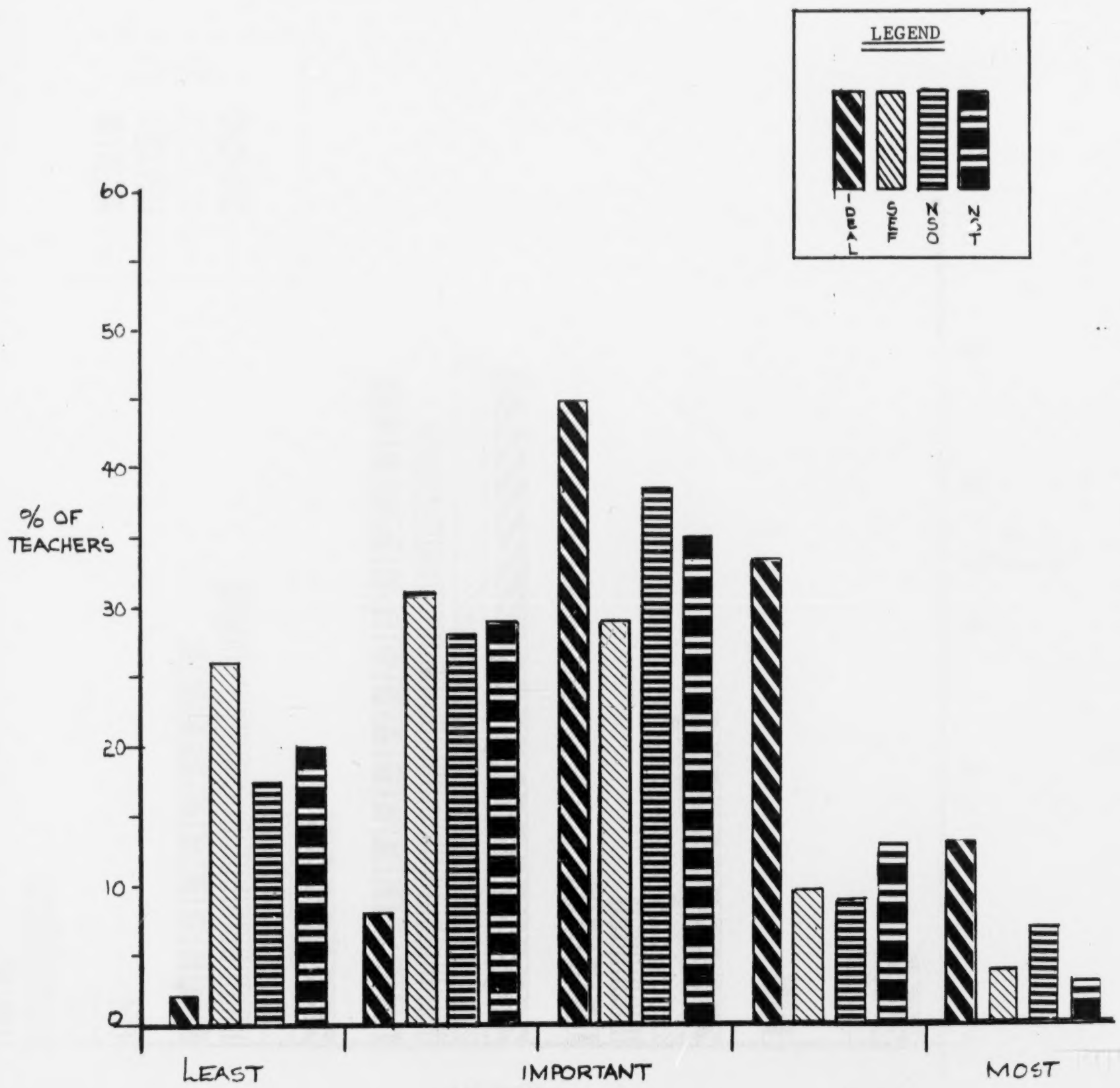



CHART #8 IMPORTANCE OF ELECTRICAL OUTLETS AND ITS ADEQUACY BY SCHOOL TYPE




CHART#9 IMPORTANCE OF ATMOSPHERE AND ITS ADEQUACY BY SCHOOL TYPE

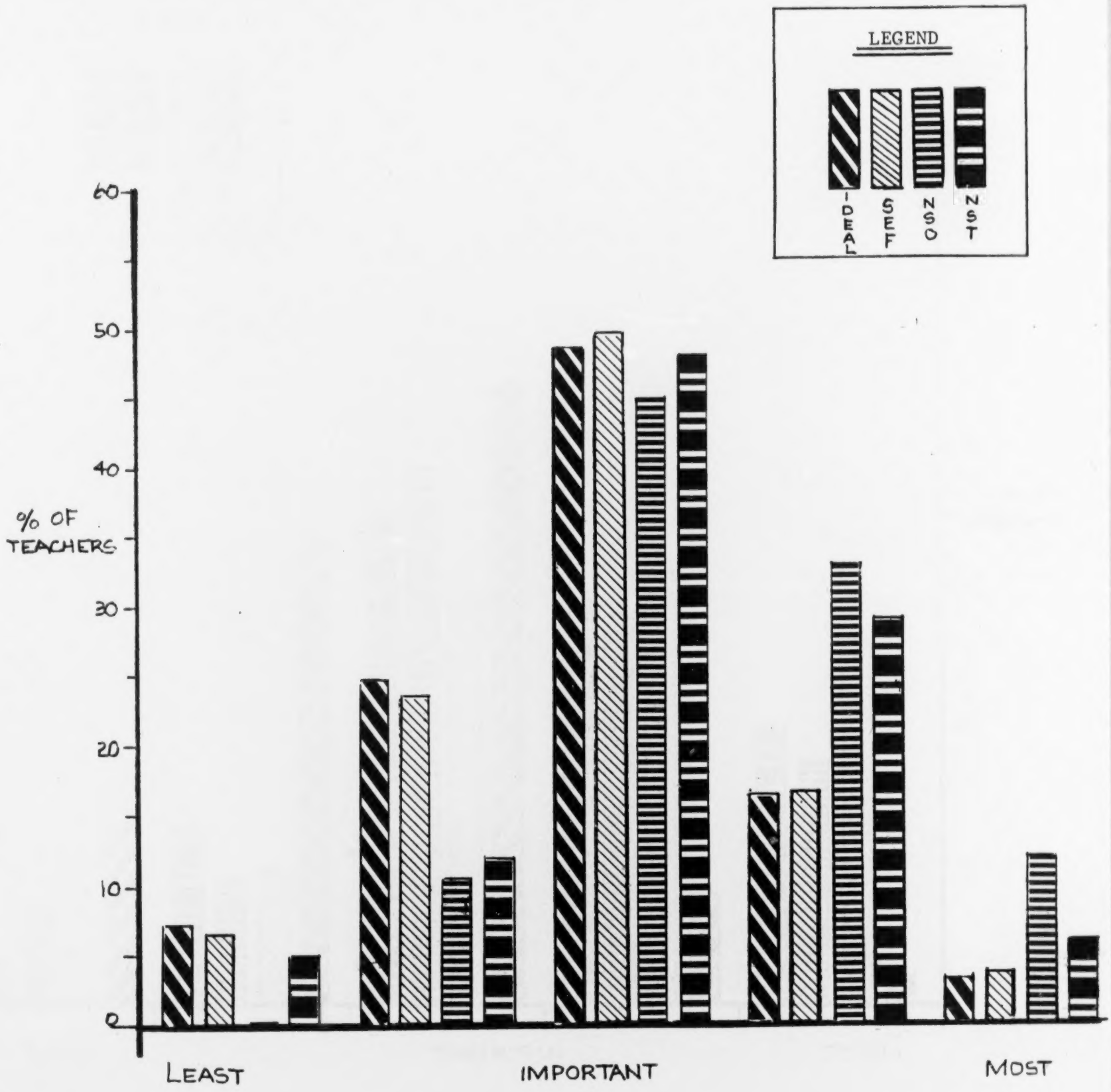



CHART #10 IMPORTANCE OF FURNITURE AND ITS ADEQUACY BY SCHOOL TYPE

# APPENDIX III

# OBSERVATION TABLES

# APPENDIX III

## OBSERVATION TABLES

Table 1: Arrangement of Furniture by Type of School

| Type of School | Pattern | | | |
|---|---|---|---|---|
| | High Definition % | Combination % | Low Definition % | N |
| SEF | 12.7 | 49.1 | 38.1 | 1052 |
| NSO | 4.6 | 68.5 | 26.9 | 848 |
| NST | 33.9 | 37.5 | 28.6 | 1003 |

Table 2: Focal Point by Type of School

| Type of School | Focal Point | | N |
|---|---|---|---|
| | None or One % | Several % | |
| SEF | 46.9 | 53.1 | 1051 |
| NSO | 67.1 | 32.9 | 846 |
| NST | 68.9 | 31.1 | 1003 |

Table 3: Scale of Structure by Type of School

| Type of School | Structure | | | |
|---|---|---|---|---|
| | High % | Medium % | Low % | N |
| SEF | 35.0 | 42.2 | 22.7 | 1051 |
| NSO | 49.2 | 44.0 | 6.9 | 846 |
| NST | 57.8 | 29.6 | 12.6 | 1003 |

NOTE: ALL TABLES ARE SIGNIFICANT AT THE .000 LEVEL UNLESS OTHERWISE NOTED.

Table 4: Scale of Structure by Socio-Economic Level

| Socio-Economic Level | Structure: High % | Medium % | Low % | N |
|---|---|---|---|---|
| High | 49.9 | 39.5 | 10.6 | 1070 |
| Medium | 55.6 | 29.9 | 14.6 | 639 |
| Low | 39.9 | 41.9 | 18.2 | 1191 |

Table 5: Scale of Structure by Size of School

| Size of School | Structure: High % | Medium % | Low % | N |
|---|---|---|---|---|
| Small | 51.2 | 41.0 | 7.8 | 821 |
| Medium | 52.3 | 32.2 | 15.5 | 1428 |
| Large | 30.3 | 48.5 | 21.2 | 651 |

Table 6: Activity of Adult by Type of School

| Type of School | Adult Activity: Not Engaged % | Engaged % | N |
|---|---|---|---|
| SEF | 23.0 | 77.0 | 912 |
| NSO | 26.1 | 73.9 | 654 |
| NST | 30.4 | 69.6 | 960 |

Table 7: Atmosphere by Type of School

| Type of School | Atmosphere: Formal % | Neutral % | Informal % | N |
|---|---|---|---|---|
| SEF | 9.6 | 35.4 | 55.0 | 924 |
| NSO | 13.5 | 48.4 | 38.1 | 645 |
| NST | 19.9 | 45.5 | 34.6 | 948 |

Table 8: Adults physical position in relation to students by type of School

| | Proximity | | | |
|---|---|---|---|---|
| Type of School | Distant % | Conventional % | Personal % | N |
| SEF | 29.0 | 41.9 | 29.1 | 904 |
| NSO | 42.5 | 44.2 | 13.2 | 642 |
| NST | 36.7 | 44.3 | 19.0 | 946 |

Table 9: Scale of Teaching Style by Type of School

| | Scale of Style | | | |
|---|---|---|---|---|
| Type of School | High % | Medium % | Low % | N |
| SEF | 11.1 | 44.5 | 44.5 | 893 |
| NSO | 18.9 | 53.5 | 27.7 | 636 |
| NST | 22.4 | 48.6 | 29.0 | 942 |

Table 10: Scale of Teaching Style by Socio-Economic Level of School

| | Scale of Style | | | |
|---|---|---|---|---|
| Socio-Economic Level | High % | Medium % | Low % | N |
| High | 20.5 | 49.7 | 29.8 | 809 |
| Medium | 16.6 | 48.2 | 35.2 | 566 |
| Low | 15.5 | 47.4 | 37.0 | 1096 |

(sig. .005)

Table 11: Scale of Teaching Style by Size of School

| | Scale of Style | | | |
|---|---|---|---|---|
| Size of School | High % | Medium % | Low % | N |
| Small | 22.0 | 52.6 | 25.4 | 627 |
| Medium | 16.7 | 47.2 | 36.0 | 1232 |
| Large | 14.1 | 46.2 | 39.7 | 612 |

Table 12: Movement of Children by Type of School

| Type of School | Movement of Children: None % | Moderate % | Considerable % | N |
|---|---|---|---|---|
| SEF | 39.2 | 50.5 | 10.3 | 1044 |
| NSO | 53.5 | 36.0 | 10.5 | 838 |
| NST | 60.4 | 31.9 | 7.7 | 994 |

Table 13: Variety of Student Tools by Type of School

| Type of School | Variety of Student Tools: 0-1 Tool % | 2 Tools % | 3-6 Tools % | N |
|---|---|---|---|---|
| SEF | 30.3 | 21.3 | 48.3 | 1059 |
| NSO | 54.9 | 24.3 | 20.8 | 849 |
| NST | 57.3 | 19.3 | 23.4 | 1011 |

Table 14: Noise Level by Type of School

| Type of School | Noise Level: Silence % | Hum % | High % | N |
|---|---|---|---|---|
| SEF | 31.1 | 52.0 | 16.8 | 1051 |
| NSO | 42.8 | 41.3 | 16.0 | 846 |
| NST | 58.6 | 31.8 | 9.6 | 1001 |

Table 15: Number of Distinct Noises by Type of School

| Type of School | Number of Distinct Noises: None % | 1 or 2 % | 3 Plus % | N |
|---|---|---|---|---|
| SEF | 10.5 | 37.7 | 51.9 | 1049 |
| NSO | 8.2 | 57.9 | 33.9 | 846 |
| NST | 14.7 | 65.8 | 19.6 | 1002 |

Table 16: Scale of Physical Activity by Type of School

| Type of School | Physical Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| SEF | 16.9 | 66.1 | 17.0 | 1042 |
| NSO | 26.6 | 67.5 | 5.8 | 838 |
| NST | 43.1 | 50.4 | 6.5 | 994 |

Table 17: Scale of Physical Activity by Socio-Economic Level of School

| Socio-Economic Level | Physical Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| High | 25.7 | 66.6 | 7.7 | 1057 |
| Medium | 38.4 | 49.9 | 11.7 | 635 |
| Low | 26.3 | 62.2 | 11.5 | 1182 |

Table 18: Scale of Physical Activity by Size of School

| Size of School | Physical Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| Small | 30.7 | 64.2 | 5.1 | 810 |
| Medium | 32.6 | 56.5 | 10.8 | 1420 |
| Large | 17.9 | 67.2 | 14.9 | 644 |

Table 19: Number of Clusters by Type of School

| Type of School | Number of Clusters: One % | 2 - 3 % | 4 Plus % | N |
|---|---|---|---|---|
| SEF | 25.5 | 30.2 | 44.3 | 984 |
| NSO | 31.0 | 27.0 | 41.9 | 799 |
| NST | 40.0 | 26.0 | 34.0 | 910 |

Table 20: Size of Largest Cluster by Type of School

| | Size of Largest Cluster | | | |
|---|---|---|---|---|
| Type of School | 1-8 People | 9-20 People | 21 Plus People | N |
| | % | % | % | |
| SEF | 64.6 | 24.1 | 11.3 | 988 |
| NSO | 60.0 | 20.0 | 20.0 | 804 |
| NST | 44.1 | 25.1 | 30.9 | 917 |

Table 21: Number of Individuals Working Alone by Type of School

| | Number of Individuals Working Alone | | | |
|---|---|---|---|---|
| Type of School | None | 1 - 2 | 3 Plus | N |
| | % | % | % | |
| SEF | 21.9 | 29.5 | 48.7 | 1042 |
| NSO | 31.5 | 42.0 | 26.5 | 838 |
| NST | 37.8 | 34.0 | 28.2 | 994 |

Table 22: Number of Students in a Space by Type of School

| | Number of Students | | | |
|---|---|---|---|---|
| Type of School | 1 - 12 | 13 - 20 | 21 Plus | N |
| | % | % | % | |
| SEF | 18.3 | 23.3 | 58.3 | 1041 |
| NSO | 22.1 | 21.5 | 56.4 | 833 |
| NST | 8.0 | 14.3 | 77.7 | 976 |

Table 23: Number of Clusters by Number of Students in the Space

| | Number of Clusters | | | |
|---|---|---|---|---|
| Number of Students | One | 2 - 3 | 4 Plus | N |
| | % | % | % | |
| 1 - 12 | 46.7 | 47.3 | 6.0 | 383 |
| 13 - 20 | 24.1 | 39.0 | 36.8 | 543 |
| 21 Plus | 31.4 | 20.1 | 48.5 | 1763 |

Table 24: Number of Students Working Alone by Number of Students in the Space

| Number of Students | Number of Students Working Alone: None % | 1 - 2 % | 3 Plus % | N |
|---|---|---|---|---|
| 1 - 12 | 25.7 | 46.8 | 27.5 | 447 |
| 13 - 20 | 22.1 | 35.2 | 42.7 | 560 |
| 21 Plus | 32.3 | 32.3 | 35.4 | 1828 |

Table 25: Number of Students Working Alone by Number of Clusters in a Space

| Number of Clusters | Number of Students Working Alone: None % | 1 - 2 % | 3 Plus % | N |
|---|---|---|---|---|
| One | 59.0 | 27.0 | 13.9 | 862 |
| 2 - 3 | 17.5 | 39.7 | 42.8 | 750 |
| 4 Plus | 16.2 | 40.5 | 43.3 | 1079 |

Table 26: Number of Students by Socio-Economic Level of School

| Socio-Economic Level | Number of Students: 1 - 12 % | 13 - 20 % | 21 Plus % | N |
|---|---|---|---|---|
| High | 21.4 | 24.9 | 53.8 | 1058 |
| Medium | 12.2 | 13.4 | 74.4 | 625 |
| Low | 12.9 | 18.4 | 68.6 | 1167 |

Table 27: Number of Clusters by Socio-Economic Level of School

| Socio-Economic Level | Number of Clusters: One % | 2 - 3 % | 4 Plus % | N |
|---|---|---|---|---|
| High | 31.3 | 32.1 | 36.7 | 982 |
| Medium | 49.7 | 24.7 | 25.6 | 586 |
| Low | 23.6 | 25.8 | 50.7 | 1125 |

Table 28: Size of Largest Cluster by Socio-Economic Level of School

| Socio-Economic Level | Size of Largest Cluster: 1-8 People % | 9-20 People % | 21 Plus People % | N |
|---|---|---|---|---|
| High | 59.1 | 23.6 | 17.3 | 990 |
| Medium | 36.8 | 27.8 | 35.4 | 587 |
| Low | 63.9 | 20.5 | 15.6 | 1132 |

Table 29: Number of Individuals Working Alone by Socio-Economic Level of School

| Socio-Economic Level | Number of Individuals Working Alone: None % | 1 - 2 % | 3 Plus % | N |
|---|---|---|---|---|
| High | 27.6 | 37.8 | 34.6 | 1058 |
| Medium | 38.6 | 27.4 | 34.0 | 635 |
| Low | 28.0 | 35.8 | 36.2 | 1181 |

Table 30 Scale of General Activity by Type of School

| Type of School | Scale of General Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| SEF | 32.5 | 48.7 | 18.8 | 887 |
| NSO | 49.1 | 45.1 | 5.8 | 634 |
| NST | 58.6 | 31.7 | 9.8 | 941 |

Table 31 Scale of General Activity by Socio-Economic Level of School

| Socio-Economic Level | Scale of General Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| High | 48.8 | 43.4 | 7.8 | 805 |
| Medium | 53.8 | 32.9 | 13.3 | 563 |
| Low | 41.5 | 44.1 | 14.4 | 1094 |

Table 32 Scale of General Activity by Size of School

| Size of School | Scale of General Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| Small | 52.5 | 41.6 | 5.9 | 625 |
| Medium | 50.3 | 36.8 | 12.9 | 1227 |
| Large | 33.6 | 49.8 | 16.6 | 610 |

Table 33 Scale of General Activity by Number of Students in a Space

| Number of Students | Scale of General Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| 1 - 12 | 39.2 | 49.5 | 11.3 | 222 |
| 13 - 20 | 38.2 | 41.1 | 20.7 | 474 |
| 21 Plus | 49.8 | 40.4 | 9.9 | 1752 |

Table 34 Scale of General Activity by Number of Clusters

| Number of Clusters | Scale of General Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| One | 64.5 | 33.5 | 2.0 | 753 |
| 2 - 3 | 33.0 | 49.3 | 17.7 | 615 |
| 4 Plus | 38.6 | 44.3 | 17.1 | 980 |

Table 35: Scale of General Activity by Number of Children Working Alone

| Not in Any Cluster | Scale of General Activity: Low % | Medium % | High % | N |
|---|---|---|---|---|
| None | 65.2 | 32.6 | 2.3 | 752 |
| 1 - 2 | 47.6 | 40.8 | 11.6 | 829 |
| 3 Plus | 29.8 | 49.3 | 20.9 | 876 |

# APPENDIX IV

## ANNOTATED BIBLIOGRAPHY OF RESEARCH ON OPEN SPACE SCHOOLS

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## INTRODUCTION

Open plan schools began to appear sporadically in the late 1950's and early 1960's. By 1970, over 50 per cent of all new schools in the United States had some form of open plan construction. In Ontario, a 1971 survey showed that there were approximately 360 schools with partial or complete open area.

The increase in the number of open plan schools was accompanied by a torrential increase in the number of educational articles praising the new style of building and the new style of open teaching. A few small voices warned about the permissiveness and lack of discipline which the open plan schools encouraged. However, there were simply no hard facts to support either claim.

This bibliography of research on open plan schools is an initial attempt by SEF to look at all the available empirical studies on open plan schools which we could find.

It excludes other kinds of research which influenced us or which we considered during our own study of open plan schools. We have not included any of the references on classroom research, or systematic observation; nor any material on individualized instruction, nongrading or other facets of open education; nor even any of the references on building appraisals or environmental psychology. It concentrates entirely on studies of open plan classrooms or open plan schools, and the students and teachers in those schools.

Five references are dated 1969, eight are 1970, and another eight are 1971. There is still a dearth of evidence on open plan schools.

We would appreciate knowing of any additional references, or of any other project in progress.

Brunetti, Frank. "Open Space: a Status Report." Stanford, Calif., School Environment Study, School Planning Laboratory, School of Education, Stanford University, 1971. 19 p. (mimeographed) Sustantially the same IN CEFP Journal, 9 (no. 5, September-October, 1971) 7-11. Also as Special Report, No. 6.

School Planning Laboratory is involved in a long range research and development program.

Describes trends in open space development, and the evolution of varying space needs. Describes various results from reports on effects of open space.

Conclusions:

1. Teams of 3 or 4 teachers were more successful in bringing about change than teams of 2 or 5.
2. Problems in interpersonal relations that hinder effective team development are probably most important problem.
3. There is disagreement amongst students on privacy needs.
4. Density may be more important than space in considering noise, distraction and privacy.

Note: Author is Director, Special Projects, School Planning Laboratory, Stanford University.

See also Open Space School Project Bulletin

Burnham, Brian. A Day in the Life; Case Studies of Pupils in Open Plan Schools. Aurora, Ont.: Research Office, Division of Planning and Development, York County Board of Education, 1970. 62 p.

Purpose: What are the behavioral outcomes for students in open plan schools or what is it like to be a pupil in an open plan school in York County?

Length of study: Winter and early spring of 1970, phase one.

Sample: Three traditional plan elementary schools and four elementary open plan schools matched on age, socio-economic conditions and geographic proximity.

Methodology: Selective description by principals as observers using Classroom Environment Code Digest (a variant of Flanders' interaction analysis) and a concentrated observation of 15 specific students.

Findings: (a) There was a trend for four out of nine criterion behaviours to be more observable in open plan schools (pupil initiated activities, co-operative planning, personal responsibility of students, pupils ask more questions).
(b) There were discrepant cases in both types of schools.

Conclusions: 1. If a school is really flexible, can it not provide both structured and unstructured activities?
2. Traditional categories of interaction analysis do not lend themselves to observation in an open plan school because so many teacher-pupil interactions are going on at the same time.

Note: Author is research officer with York County Board of Education. This study is part of an ongoing program of evaluation in both elementary and secondary schools.

The report was planned and executed with the help of 10 principals, one vice-principal, and one program co-ordinator in junior and senior public schools in York County. It includes a selected bibliography, p. 19-20. Also a good description of the schools and their characteristics p. 10-13.

See also York County Board of Education.

Burns, Joshua A., "Development and Implementation of an Environmental Evaluation and Redesign Process for a High School Science Department," Menlo Park, Calif.: 1971, 9 p. (Mimeographed)

Purpose: To develop a process for evaluation of experiments by the users who are teaching and learning.

Length of Study: Oct. 1970 - March 1971

Sample: Intensive observation and measurement in one high school science department and surveys of students from several other high schools.

Methodology:

1) Two week long series of measurements and observations in Oak Grove Science Dept. suite, followed up by surveys of students both at Oak Grove and other high schools in the district.
Three variables-noise levels, thermal environment conditions and lighting levels-were measured.

2) Graduate students from Stanford and San Jose led by Frank Brunetti recorded and mapped grouping patterns and types of activities in the Science Resource Centre and two science labs.

3) Also opinion survey of student attitudes.

Findings:

1) Environmental conditions:
   a) noise - noise level problem could only be effectively reduced by a combination of improved room absorption and more effective teacher control of noise generation.
   b) thermal - air conditioning system had inadequate air movement patterns and air had a very low relative humidity.
   c) lighting - configured in an ineffective manner

2) Behavioral studies:
   - higher incidence of science oriented activity in the two labs, and activities in the labs more stable than in science resource centre.
   - a majority of students worked in groups rather than as individuals.

3) Attitudinal studies:
   - type of activity causing distraction and the activities of the respondent are closely related to feeling of distraction.
   - there is a positive relationship between student density and the amount of distraction due to noise levels.

Conclusions:

1) Study did provide feedback to staff and gave teachers greater confidence and improved their ability to communicate their goals.

2) Options available to student and teacher still limited.

3) New quick tools of analysis must be developed.

4) School budgeting limits evolution of spaces and environmental conditions.

Note: Author is assistant director, Building Systems Information Clearinghouse (BSIC) EFL.

See also: Brunetti, Frank, "Open Space, a Status Report".

Chapman, Pam. "The Open Area and the Self-Contained Classroom." Paper presented to Dr. C.C. Brodeur, OISE, 1970. 16 p. (Mimeographed)

Purpose: An attempt by OISE student to investigate the extent and nature of the physical environment on activities.

Length of study: One day of observation

Sample: Two classes of grade 1-2 students in same school, one in a traditional classroom, one in open space.

Methodology: Student verbal and non-verbal behavior were noted and movements within class areas were plotted by two observers and a camera.

Findings: No significant differences were found in verbal or non-verbal behavior. There was less use of periphery space in open areas. Arrangement of furniture affects the activity of a space.

Conclusions: Conscious efforts are needed to explore the possibilities of open space.

Cheek, Robert Edward. "The Opinions of Teachers Teaching in Selected Open-Space Elementary Schools." Ph.D. dissertation, Wayne State University, 1970. 198 p.

Purpose: To survey practices and conditions in open space elementary schools.

Length of Study: 1969-70.

Sample:
1. 105 teachers randomly selected from five open space elementary schools in California.
2. 24 teachers, as well as 200 randomly selected students in two open space schools in Michigan.

Methodology:
1. Mailed questionnaire to California teachers.
2. 15-20 minute interviews with teachers, 5-10 minute interviews with students in Michigan schools.
3. The writer was a participant observer in both Michigan schools. He served in various roles - pupil, teacher, custodian, librarian, administrator.

Findings:
1. No agreement among teachers as to exact purpose for using open space concept in elementary schools.
2. Frequent interactions between students do exist.
3. Open space concept may facilitate positive pupil-teacher interaction.
4. Team teaching and non-gradedness were not necessarily facilitated by open space conept. Large-small group activities were facilitated.
5. Disagreement among teachers as to whether an open plan facilitates teacher interaction.
6. Facilities and equipment may facilitate flow of new ideas.
7. Principals' and teachers' roles are different in open space.
8. Training is a major problem. No established techniques exist.
9. Noise level is a problem. Desirable student behavior not necessarily facilitated.

Conclusions:
1. There should be a systematic review of all related activities for open space concept.
2. Teacher selection is a vital concern.
3. There needs to be early and active parent and community participation.
4. Furniture and equipment should reflect learning program. Carpeting is a must.
5. Nothing can be assumed in open space. Students and teachers need to adjust to human interactions and learn to control their voices. Teachers should be involved in developing policies and procedures of the library/ resource centre.
6. Only teachers willing to accept notion of change should be placed in open space schools.

Note: Data collecting instruments p. 179-193. Bibliography p. 194-197.

Ellison, M., Gilbert, L.L., and Ratsoy, E.W. "Teacher Behaviour in Open-area Classrooms." Canadian Administrator 8 (No. 5, February, 1969) 17-21.

Purpose To study teacher utilization of time and verbal interaction in open areas and traditional classrooms.

Length of study: Two weeks

Sample: One open area school and one traditional school (grades 4-6 only).

Methodology: Two trained observers recorded teacher activity. No. of observations = 5,477

Findings: More time was devoted to routine in traditional classroom. More time was spent observing other teachers, interacting with adults, and in transition in open space. However, no differences were found in instructional supervision, nor in methods of presenting information.

There was less time devoted to small group activity in the open area school, and more large group activity. There was less private talk between teacher and pupil and more teacher presentation in large groups, but more pupil-initiated talk.

Conclusions: "The differences between the two schools did not appear greatly to affect practices within them."

Note: Mr. Ellison and Mr. Gilbert were graduate students in Educational Administration, working with Associate Professor Ratsoy at the University of Alberta, Edmonton.

Table 1: Description of Activity Categories used in Time Utilization part of study p. 18.

Halton County Board of Education, West Education Centre. Evaluation Committee of the Innovations Council. Final Report. Oakville, Ont.: 1969. 13 p.

Purpose: To evaluate the co-operative teaching and continuous progress plans operating in the new schools and to investigate means whereby they can be used in traditionally designed schools.

Sample:
1. Grade 5 and 6 students from one open plan school and one traditional plan school.
2. 75 Grade 8 students in open plan schools.
3. Attendance records of 25 students.
4. 650 parents.
5. 34 teachers in open concept schools, 16 in traditional plan schools.

Methodology:
1. Student survey - Specific curiosity by H. Day and Children's Reactive Curiosity Scale by R. Penney and B. McCann
2. Some direct observation of teachers and pupils.
3. Questionnaires to students and teachers
4. Informal discussions.

Results:
1. Better attitudes of students towards school and themselves in open plan schools. Fewer discipline problems.
2. Freedom of movement, interaction with more pupils, and development of pupil responsibility were significant positive reactions in answers to questionnaires on open space environment. However, students admitted wasting time, and open classrooms sometimes were noisy or distracting.
3. Marked increase in attendance of students generally.
4. Majority of parent questionnaires indicated a favourable attitude towards continuous progress and co-operative teaching.
5. A large majority of teachers felt continuous progress was beneficial for students, and more satisfactory as a teaching situation. Workload was considered heavier because of increase in planning time, record-keeping and testing.

Conclusions:
1. Authors consider this to be a short-term non-scientific analysis.
2. Continued assessment of open plan schools is vital to evaluate attitudes, curiosity and creativity of children.
3. More communication with parents is necessary.
4. In-service training of teachers essential. Scheduled school time should be used for planning. Compatibility and ratio of experience to inexperienced teachers need to be considered in makeup of teaching teams.
5. Continuous progress and co-operative teaching can be implemented in traditional schools with certain limitations.

Note: The Evaluation Committee was made up mainly of elementary school teachers plus one teacher in a high school, one assistant superintendent and a couple of special staff members.

The appendix includes the student attitude survey and student questionnaire on open concept schools; parent questionnaire on continuous progress and co-operative teaching; and teacher questionnaire on continuous progress and co-operative teaching.

Johnson, Charles E. and others. A Comparative Study of Student Achievement and Student Participation Patterns in the Howard County Model Elementary School. Clarksville, Md: Howard County Board of Education, 1970. Various paging.

Purpose: To provide objective evidence of differences in teacher and student activity, and student achievement between an open space innovative instructional program and traditional classroom program. Does behavior change in ways that are considered desirable?

Length of Study: Since 1968. Continuing. First evaluation done during first year of open plan school's operation.

Sample: Eight equal sized sub-samples of grade 3 and grade 5 level boys and girls randomly drawn from both types of schools. Total sample was 88.

Methodology: 1. Achievement was measured by Iowa Tests of Basic Skills.
2. Systematic observation of individual students rather than groups. Each student was observed for six 5 minute time blocks over a period of three weeks.

Results: 1. Both schools were above average on Iowa Tests. Differences between schools could be attributed to chance.
2. Many more small groups in model open space school, and greater flexibility and more frequent regrouping.
3. More students in model school spent more time in independent study and less time in teacher led activities.
4. More students spent more time moving from one part of school to another in model school and more time interacting with other students. Open space students spent less time in group activities. Students in traditional schools spent more time attracting teacher's attention.
5. Teachers in model school spent more time with individual students and listening to student presentations.

Conclusions: As standardized tests are unresponsive to instructional needs of new schools, future comparisons should be made on tests constructed to measure specific kinds of skills stressed in open space.

Note: This report was done by three professors and one doctoral students at the University of Maryland in co-operation with the Howard County Board of Education, Clarksville, Md. The summary by John G. Freudenberger.

Sample student observation record is on pages 13-14.

Justus, John E. "An Educator Views Open Space and the Planning Process," CEFP Journal, 9 (No. 5, September-October, 1971) 12-14.

Purpose: To secure attitudes of the major users of one open space school.

Sample:
1. 20 randomly selected grade 6 students.
2. All the teachers in a 720 pupil grade 6-7-8 middle school.
3. Six architects.

Methodology: Four similar open-ended questions to teachers and students.

Findings:
1. Many students and teachers found noise disturbing. Many students had trouble hearing a teacher.
2. Many students said moving people distracted them.
3. Distraction causing a break in concentration came more in mathematics and reading.
4. Teachers felt they were more distracted than students but students tended not to agree.

Conclusions: Reactions of students must be meshed into the planning alliance as a feedback to planners.

Note: Author is Assistant Chief, Bureau of School Facilities, Florida State Department of Education.

Kleparchuk, Harry. "Supervisory Services Considered Desirable by Teachers and Principals in 'Open Space' Elementary Schools," Oregon School Study Council Bulletin, 14 (No. 2, Oct. 1970) 25 p. (Entire issue).

Purpose: To identify supervisory problems in open space schools in Edmonton, Alberta.

Sample: 1. 17 open space schools - Principals (N=17) and teachers (N=104) of grades 4,5, and 6.

Methodology: 1. Questionnaire to total sample. Each of the 77 items of the questionnaire were ranked from 'most desired' to "least desired". Criteria for desirability were determined from the value of the mean.
2. Smaller sample (N= 32) interviewed as a supplement to questionnaires. They were asked their reaction to the low rank of several items.

Findings: 1. Teachers consider themselves to be professional people and desire autonomy in the classroom.
2. Principal is a co-worker and facilitator of activities.
3. Teacher evaluation by principal was opposed vigorously.
4. Principals reacted more forcefully, both positively and negatively but generally there was a great similarity between teachers and principals among top ranked and bottom ranked items.
5. Staff relations, whether good or bad, are magnified in an open space school
6. Provision for planning time during school day ranked high.

Conclusions: 1. Principals should be concerned about staff interaction, should give more responsibility to teachers, and should be cautious about classroom visits as a supervisory technique.
2. Demonstration teaching should be de-emphasized.
3. Principals should help teachers achieve a sense of worth and dignity in their work.

Note: Dr. Harry Kleparchuk is principal of McKee Elementary School, Edmonton, Alberta.

Table 1. Rank order of means of supervisory services directed toward the improvement of instruction as indicated by teachers p. 4-9.

Table 2. Rank order . . .as indicated by principals p. 10-15.

Bibliography p. 23-25

Floor plans of three schools in Appendix.

Kyzar, Barney L. Comparison of Instructional Practices in Classrooms of Different Design. Final report. Natchitoches, La.: Northwestern State University, 1971. 71 p. (ED 048 669).

Purpose: To compare practices and problems in open plan classrooms with those in traditional plan classrooms. Also to conduct a sound survey.

Sample: Three open plan elementary schools, one open plan secondary school, each paired with a traditional plan school. Schools had been open one, two, or three years. Same teachers were in both secondary schools.

Methodology: 1. Adapted a lengthy observation instrument by Sanders. Copious notes which were made by observers were recorded on summary sheets at end of day. Each selected classroom was visited for four one-half hour periods.

2. Asked teachers for comments.

3. Noise reduction value of each space was determined by taking 3-5 readings of tape recorder in various bands of white noise both in source room and in receiving room. Then actual classroom noise levels were recorded on sound level meters.

Findings: 1. (a) No discernible trends in the use of activities in the instructional program for most part.

(b) One open plan school which had carefully oriented the teachers showed significant differences in favor of open education practices.

(c) Same teachers in an open plan and a traditional plan secondary school used more highly rated order maintaining techniques in open plan.

2. Teachers considered noise as one of the prime problems in open space. Absence of walls was a negative psychological factor for teachers in this study.

3. (a) Noise reduction quality were in low ranges from 6 to 9 decibels.

(b) Overall sound levels in two types of school no different.

Ledbetter, Thomas Allen. "A Study of Open Spaces for Teaching." Unpublished Ed.D. dissertation, University of Tennessee, 1969. 140 p. (Abstract in Dissertation Abstracts 30 ( ) 3196-A)

Purpose: To analyze open teaching spaces in ten selected school facilities, to identify reactions of students and teachers to their school facility and to present findings on the strengths and weaknesses of open plan schools. Does not measure effects of open space on activities or achievement.

Sample: 4 open space elementary schools - 19 students, 19 teachers.
4 open space junior high or middle schools - 20 students - 20 teachers.
2 open space high schools - 10 students, 10 teachers.

Methodology: 20 item environmental check list scaled from strong like to strong dislike. Two questions on best liked and least liked item.

Findings:
1. Open teaching spaces were liked by all respondents but most liked by elementary school sample.
2. Carpet was best liked feature.
3. Temperature controls were not used effectively.
4. Student storage space was least liked item.
5. Amount of noise was disruptive, especially in high schools.
6. Students generally showed less dislike than teachers.
7. Lighting, in absence of windows, was well liked.
8. Instructional programs gradually changing.

Note: Describes in detail teaching spaces in the ten selected schools. Bibliography P.131-136, Checklist of Environmental Conditions p. 138-139.

McRae, B.C., The Effect of Open-Area Instruction on Reading Achievement. Vancouver; Board of School Trustees, Dept. of Research and Special Services, 1970. 4 p. (Research Report 70-23).

Purpose: To test hypothesis that students entering a secondary school from open area classes do less well on a standardized reading test than students from traditional classes.

Length of Study: Single test given a year apart.

Sample: 34 open area students from one class
34 randomly selected students from traditional classes.

Methodology: Gates-MacGinitie Reading Test used to test students at beginning of secondary school and one year later.

Findings: Open area students were at a lower level than traditionally instructed students but after one year of traditional instruction, tended to catch up.

Metropolitan Toronto School Board, Study of Educational Facilities. E5: Academic Evaluation - An Interim Report, Toronto, Ont., 1971, 205 p.

Purpose: Evaluation of the total environment of SEF schools compared to Non-SEF schools, both open plan and traditional plan.

Length of study: 16 months, May 1970 - September 1971.

Sample: 16 schools (8 SEF, 4 Non-SEF open plan schools, 4 Non-SEF traditional plan schools. Teachers and principals (N=367) Students (N=1,078). Parents and neighbours (N=577). Observations (N=6,573).

Methodology: Teacher and principal questionnaires to total sample in 16 schools, student questionnaires to randomly selected 5 and 6 students in heterogeneous classes, parent and neighbour questionnaires to randomly selected parents and neighbours in eight schools. Week-long observation of all students and teachers in 12 schools.

Findings: Conclusions Arising from the Comparisons Among the Three Types of Schools

1. From the standpoint of the users, all things considered, Non-SEF open plan schools are just as satisfactory educational environments as are SEF schools. While there are differences favoring SEF or Non-SEF open plan on specific items or characteristics of the facility, the magnitude of these differences from school to school within both SEF and Non-SEF open plan types is generally much larger than the average difference between the types. The large overriding differences are generally found between new (open plan) schools and older (traditional plan) schools.

2. The environments provided by older schools are not as satisfactory to users as those found in newer schools. (All the open plan schools are new or newly remodelled.)

3. Open plan schools work well for many people. On the average, students in the open plan schools feel that they spend fewer hours in their class area, go to other areas of the school more often, and talk to a larger number of teachers than do children in traditional schools. Furthermore, they feel that they use the audio-visual equipment more often, visit the library more often, go on field trips more often, and rearrange their chairs and desks more often than students in traditional schools.

4. Open style teaching occurs in traditional plan schools but not as frequently as in open plan schools. Traditional plan schools may not be as conducive to co-operative teaching. More variable groupings occur in open plan schools.

5. Teachers in traditional plan schools report that they spend more time on individual planning than do teachers in open plan schools. However, more joint planning takes place in open plan schools.

6. Three-quarters of the teachers in traditional plan schools say they like the enclosed classroom more than do other teachers they know. However, less than half the teachers in open plan schools claim to like the enclosed classroom more than do other teachers they know.

7. Open plan schools are noisier and there is dissatisfaction with the provision of chalkboard and display surfaces.

8. Many users in the older traditional plan schools indicate that the provision of electrical outlets is insufficient.

9. The relationship between open style (high activity) teaching and behavioral outcomes in students has not been established. It seems probable that students attending open style schools will display different attitudes toward information and different tendencies regarding teamwork.

Note: The study was designed by SEF Academic staff in conjunction with Dr. Jerome T. Durlak of York University. Data was collected by Dr. James White of David Jackson Associates.

Appendix I - Instruments for SEF Academic Evaluation, 1971. p. 107-141.
Appendix II - Charts to illustrate comparative satisfaction: actual vs. ideal school building.
Appendix III - Observation Tables.
Appendix IV - Annotated Bibliography of Research on Open Space Schools.
Appendix V - Bibliography of Bibliographies and Directories on Open Space Schools.

Meyer, John, Elizabeth Cohen and others. The Impact of the Open-space School upon Teacher Influence and Autonomy The Effects of an Organizational Innovation. Stanford, Calif. School of Education, Stanford University, 1970. (SOE Project No. 5-0252-0307) .185 p.

Purpose: To study the work relationships and activities of teachers and their overall influence in open space schools and traditional plan schools.

Length of study: Not stated.

Sample: 110 Teachers in 9 open space schools and 120 teachers in 8 traditional plan schools.

Methodology: Pretest and test by questionnaires in regularly scheduled faculty meetings. Questionnaires covered ambition and orientation, formal evaluation, job satisfaction, school authority structure and personal background information.

Findings: Teachers in open plan schools were more satisfied, felt more autonomous and reported more influence in making all kinds of decisions.

This is a well designed and well written research report. Future studies plan to use systematic classroom observation.

Biblio - p. 138-9.
Tables - p. 140-150.
Questionnaires - p. 151-185.

Myers, R.E. "Comparison of the Perceptions of Elementary School Children in Open Area and Self-contained Classrooms in British Columbia: Ideal Teacher Check List," Journal of Research & Development in Education, 4 (Spring, 1971) 100-106.

Purpose: To determine differences between self contained classrooms and open areas. Assumptions were (1) that people would operate differently in different environments, and (2) children would perceive their own roles and teachers' roles differently in open areas. In an open area a pupil learns to depend upon himself, and looks less often for cues from teachers about how to behave.

Sample: Pupils in third grade and above in elementary open area classrooms (N=62) matched with similar groups in self contained classrooms (N=271)

Methodology: Ideal Teacher Checklist (Torrance & Myers, 1970) From a 66 point list students double checked five characteristics they would certainly expect to find in an ideal teacher, single checked all other characteristics they thought characteristic of an ideal teacher and crossed out those not characteristic.

Findings: 1. Considerable agreement about what constitutes an ideal teacher.
2. Children in open areas have less need to depend on their teachers
3. "Children in open areas are less concerned about control." Findings are contradictory on this point.
4. Pupils in self contained classrooms more preoccupied with being treated fairly.

Conclusion: Task is to determine which children benefit most and least from certain kinds of learning environments.

Note: Author is with Oregon State Teaching Research System of Higher Education.

Oldridge, O.A., Overlander: A study of Instructional Innovation Involving Teachers Attempting to Non-grade an Open Area Elementary School. Vancouver: Educational Research Institute of B.C., 1969, 42p.

Purpose: To evaluate the total school program of one small new open plan elementary ungraded school.

Length of Study: Three days, May, 1969

Sample: 132 students (almost 100 per cent of school population) 85% of the parents, principal and 8 teachers.

Methodology: 1) Questionnaires to students, teachers and staff

2) Observation by Dr. Daniel Purdom, Associate Professor University of South Florida and by Mrs. Patricia Clark, Administrative Assistant, Fountain Valley, Calif., to evaluate effectiveness of implementation of non-graded program.
Eleven propositions as defined in Dr. Purdom's conceptual model from his 1967 doctoral dissertation at U.C.L.A. are basis of evaluation.

Findings: Areas of strength -
1) pacing of learning opportunities
2) judging a child's progress in terms of his individual ability
3) provision for alternative learning environments

Areas of weakness -
1) evaluation of all phases of growth and development
2) constant systematic evaluation practices
3) formulation of objectives by learner

1) Beginning teachers can implement an innovative program.

2) Lack of experience not seen as a handicap

3) Open areas can provide adequate learning environments

4) Open space is conducive to co-operative teaching and almost mandatory

5) Boys demonstrated consistent preference over girls for instructional program

6) Selection of staff most crucial factor

Conclusion: Academic, social and affective areas were not evaluated, and will not be, until there is sufficient evidence that complete non gradedness has been achieved.

Note: Student questionnaire percentage responses - p. 8A
Parent questionnaire percentage responses - p. 10A

Open Space School Project Bulletin, School Planning Laboratory, School of Education, Stanford University, No. 1, March 1970. 7 p.

Describes exploratory first phase of a research project to collect and disseminate information on common practices and concerns of open space schools.

Thirty school districts in Arizona, California, Colorado and Utah with a total of 120 open space schools co-operated.

Answers basic questions, what is open space and shows varieties of open space schools. A survey of all the states divides schools into open, modified and conventional. Well over half the schools constructed between 1966-69 were open or modified open space schools. Also tries to answer the question "why open space".

Over half the schools were developing new programs. Problem areas were explored with the most urgent need being intensive inservice and preservice open space training.

Academic achievement of students in both types of schools was equal but there were fewer discipline problems, better social and emotional development and increased decision-making and inquiry skills among students in open space schools.

Pritchard, D.L. and Moodie, A.G. A Survey of Teachers' Opinions Regarding Open-Areas. Vancouver, B.C.: Vancouver School Board, 1971. 12p. (Research Report 71-06).

Purpose: To survey the opinions of teachers in Vancouver who are teaching in open areas, or who have taught in open areas.

Sample: 93 of the 103 teachers who were in open areas during the 1970-1971 school, and 16 of the 17 former open area teachers.

Methodology: Mailed questionnaires

Findings:

1. Approximately 90 per cent enjoyed and agreed with open area teaching and are at ease with other teachers, believe as much or more learning occurs, and believe students enjoy it.

2. 75 per cent or more teach differently in open space, are organized for team teaching, consider open area appropriate for age level they teach, and believe 2 or 3 class groups is ideal team size.

3. Over 50 per cent had requested open area teaching, would choose it again, believe visitors seldom present a problem, believe parents approve, believe there is better pupil development, and believe the intermediate grades are the most appropriate grades for open area instruction.

4. Reservations for 75 per cent of teachers:
   a. enclosed area is required for certain classes
   b. more lesson preparation is necessary
   c. inservice training is insufficient.

Findings From Open Ended questions:

1. Most teachers support the open area concept because it facilitates team teaching and encourages children to be independent and innovative.

2. Disadvantages of open space are:
   a. for nearly half the teachers inadequacies of facilities and equipment and classroom noise.
   b. for one quarter of the teachers: teachers often make compromises to avoid disturbing others; immature children are unable to cope.
   c. For approximately one fifth of the teachers: some teams have incompatible members; inadequate planning time; difficulty in detecting children who need assistance.

Note: This is a follow-up of a 1969 study. Questionnaires with frequency of responses make up major portion of the study.

Wilson, F.S., Langevin, R., and Stuckey, T. "Are Pupils in the Open Plan School Different?" A Paper Presented to the Seventh Canadian Conference of Educational Research, Victoria, B.C., January, 1969. Ottawa, Canadian Council for Research in Education, 1969. 6p.

Purpose: To compare students in open plan and traditional plan schools.

Sample: Four Toronto schools. One was a new building designed as an open plan school (No. of students = 58), one was a traditional plan school which had operated for six years as a lab school with an open educational philosophy (No. of students = 46). The two control schools (No. of students = 59) were both traditional in design, and traditional in style of teaching.

Method:
1. Semantic differential questionnaire was used to measure attitudes towards school, teacher, self, learning, and least year's school.
2. Torrance Minnesota Tests of Creativity to assess productive thinking.
3. Two curiosity questionnaires, Specific Curiosity (Daly), Reactive Curiosity (Penney).

Findings:
1. Students in schools following an open style of teaching rate their school more positively and rate themselves more positively than the control subjects.
2. No significant differences in curiosity. Is it the fault of the instruments?
3. In most cases the new open plan school showed the least creativity of the three groups consistently. The lab school subjects were superior on verbal tasks. The correlations are significant between creativity and time spent in the lab school.

Conclusions:
1. Pupils in open environments demonstrate an obvious self discipline, maturity and absorption in their activities.
2. Although initially there may be a suppression of productive thinking, with time in the open environment creativity may reach a new high which is above average.

Note: Dr. F. S. Wilson is with Student Services, Toronto Board of Education. The other two authors were with OISE at the time of the study.

York County Board of Education, Division of Planning and Development, Research Office. Reading and Mathematics Achievement of Grade 1 Pupils in Open Plan and Architecturally Conventional Schools. Aurora, Ont: 1971. 5 p. (Studies of Open Education, No. 5)

Purpose: To compare reading and mathematics achievement for grade one pupils in open and traditional plan schools.

Length of Study: May, 1971. This is a report of the first year findings (grade 1) of achievement differences. The longitudinal study is a minimum of three years.

Sample: Grade 1 students from 47 classes in two open plan and nine control schools. 89 open plan students, 425 traditional plan students.

Methodology: 1. Canadian Cognitive Abilities Test (1970), Primary 1, Form 1 (CCAT).
2. Metropolitan Achievement Test (1970 ed), Primary 1, Form G (MAT).

Findings: Normal distribution of scores both in open plan and traditional plan schools.

Conclusion: No significant differences found.

Note: See also study by Brian Burnham

York County Board of Education, Division of Planning and Development, Research Office. Thornlea Review Studies, 1968-1969, 1970-1971, Aurora, Ontario.

Purpose: To evaluate the success of the Thornlea experiment.

Sample: Staff and students of Thornlea Secondary School.

Methodology: Various approaches to evaluation were used. Questionnaires and interviews were cross validated by Semantic and Behavioral Differential instruments. Analysis was generally done by staff. The exception was the study done on the resource centre which was published by the Research Office for use by staff. A self evaluation program was then developed.

LIMITATIONS OF OBSERVATION STUDIES IN OPEN PLAN SCHOOLS

Burnham — Observed small sample of students (N=15) only. Used a traditional category of interaction analysis.

Burns — Observed one area of school only (science suite)

Chapman — Observed two classes only. Open classroom was relatively structured, closed classroom relatively unstructured.

Cheek — Author was a participant observer in two open plan schools but there is no specific analysis of observation.

Ellison — Despite a large number of observations (N=5,477) they observed teachers only, and in only two schools, one open plan, one traditional.

Halton — No specific analysis done. Observation was casual.

Johnson — Developed a useful observation record, but the observation was of individuals (N=88) not groups or spaces.

Kyzar — Observed 12 classes. Unwieldy observation. Numerous notes made during day, coding done at night.

Oldridge — Subjective evaluation by two well qualified people. Aim of observation was to evaluate non-graded program.

## OVERVIEW OF EMPIRICAL STUDIES ON OPEN PLAN SCHOOLS

All the studies were tentative steps towards a means of evaluation of open plan schools.

Some of the studies were done by individual students, one by an individual school, some by universities, and some by school boards. Some included teachers and principals as part of a research team. Several were single investigations, while others were part of ongoing projects (e.g. Brunetti, Burns, Johnson, York County).

Four of the studies focused on teachers only (Ellison, Kleparchuk, Meyer, and Pritchard); eight focused on students only (Burnham, Burns, Chapman, Johnson, McRae, Myers, and York County Studies of Open Education No. 5); six (Cheek, Halton County, Justus, Oldridge, SEF and York County Thornlea) included both teachers and students; and three of these also included parents (Halton County, Oldridge and SEF). The SEF study had a neighbor sample as well. The size of the teacher sample varied from 24 to 361, and the student sample from 15 to 1,085, and the school sample from 1 to 17. Five studies concerned themselves only with open plan schools (Cheek, Kleparchuk, Oldridge, Pritchard, and York County Thornlea), while the remaining studies made comparisons with traditional plan schools. Four included a sample of secondary schools (Burns, Kyzar, Ledbetter and McRae) and one was a series of studies on a specific open plan secondary school (York County Thornlea).

Only three, Burnham, Burns, SEF examined the facilities. The Burnham study did a very careful description of schools, not only by age, size, socio-economic status, districts and geographic proximity but also by characteristics such as a pupil-teacher ratio, range of AV and adequacy of equipment and space. The Burns study examined one school's science suite in depth. They looked at the physical changes which had been made and measured noise levels in relation to the other areas of the school, and thermal environment and lighting levels. The SEF study of 16 schools examined teacher and student satisfaction with, and utilization of specific areas (e.g. gym, library, music room); specific aspects of the whole school (e.g.

layout, roominess), and specific aspects of their class area (e.g. lighting, windows, privacy). It also measured the discrepancy between teachers' perceptions of 10 specific items in their actual environment, with the same items of their ideal environment.

Direct observation in one form or another was used in nine studies, in seven instances (Burns, Cheek, Halton County, Johnson, Kyzar, Oldridge and SEF) in combination with other methods. Many of the studies developed specific questionnaires (e.g. Kleparchuk, Meyer, SEF) and at least two developed new forms for recording observed behavior (Johnson, SEF).

A variety of supplementary methods were also used: camera (Chapman), videotape (Ellison, Johnson), use of attendance records (Halton County), and a sound survey (Burns and Kyzar).

Several specific scales and tests were used. One of the major problems was that standardized tests or observation methods used in traditional plan schools or for traditional styles of teaching were not measuring the specific skills or approaches being emphasized in open plan schools.

Twelve of the twenty-two studies cited are Canadian (2 Alberta, 3 British Columbia and 7 from Ontario).

OVERVIEW OF EMPIRICAL STUDIES ON OPEN PLAN SCHOOLS*

| TUDY | SAMPLE | METHODOLOGY | DATE | STUDY DONE BY |
|---|---|---|---|---|
| URNHAM ONTARIO) | Schools: O. 10<br>T. 5<br>Grades: 2-8<br>Students: O. 10<br>T. 5 | Observation<br>Instruments: 1. Classroom Environment Code Digest<br>2. Shadow Study | 1970<br>Part of ongoing | Board research officer and 12 local educators |
| URNS (CALIF) | Schools: O. 1<br>T. ?<br>Grades: High school<br>Students: O. ?<br>T. ? | 1. Observation<br>2. Measurement of physical environment<br>3. Questionnaires | Oct. 1970-March, 1971 | BSIC/EFL |
| HAPMAN ONTARIO) | Schools: one O & T<br>Grades: 1-2<br>Students: O. 17<br>T. 17 | Observation<br>Camera took a picture every 15 seconds | 1970<br>Single investigation | Graduate student OISE |
| HEEK CALIF. & MICH) | Schools: 1. O. 5<br>2. O. 2<br>Grades: K-8<br>Teachers: 1. 105<br>2. 24<br>Students: 2. 200<br>(all open) | 1. Questionnaires only (5 Calif.)<br>2. Interviews, questionnaires participant observation (indepth study of 2 Mich. schools) | 1970<br>Single investigation | Doctoral student, Wayne State |
| LLISON ALBERTA) | Schools: O. 1<br>T. 1<br>Grades: 4-6<br>Observations: 5,477 | Observation<br>1. Activity Sampling Technique<br>2. Flanders Verbal Interaction Analysis | April-May, 1968,<br>Single investigation | 2 grad. students, University professor |
| ALTON ONTARIO) | Schools: O. ?<br>T. ?<br>Grades: 5-6<br>Teachers: O. 34<br>T. 16<br>Students: O. 75<br>T. 33<br>Parents: 650 | Questionnaires, Observations, Interviews<br>1. Specific Curiosity<br>2. Reactive Curiosity<br>3. Attitude survey<br>Also used attendance records of 25 students. | 1969<br>Final report of Committee | Evaluation Committee (mainly elementary teachers) |
| JOHNSON (MARYLAND) | Schools: O. 1<br>T. 1<br>Grades: 3-5<br>Students: O. 44<br>T. 44 | Standardized tests, Observation<br>Iowa Tests of Basic Skills | 1968-69<br>part of ongoing | 3 professors and one student in cooper'n with school board |
| JUSTUS (FLORIDA) | Schools: O. 1<br>Grades: 6-8<br>Teachers: O. 24<br>Students: O. 20<br>Architects: 6 | Open ended questionnaires | 1971<br>Single investigation | Florida State Dept. of Educ. |

*Brunetti and Open Space School Project omitted from tabulation

O. = Open plan school  T. = Traditional plan school

| STUDY | SAMPLE | METHODOLOGY | DATE | STUDY DONE |
|---|---|---|---|---|
| KLEPARCHUK (ALBERTA) | Schools: O.17<br>Grades: 4-6<br>Teachers: O. 104<br>plus 17 principals | Questionnaires | 1970<br>Single investigation | Doctoral Student (Oregon Can. ele principa |
| KYZAR (LOUISIANA) | Schools: O. 4 (one secondary)<br>T, 4 (one secondary)<br>Teachers: 12 classes<br>Students: 12 classes | Observation Sanders Observation Instrument<br>Interviews | 1970<br>32 days, single investigation | Nationa Centre Educati Researc Develop |
| LEDBETTER (TENNESSEE) | Schools: O. 10<br>Grades: K-12<br>Teachers: O. 49<br>(19 elem, 20 intermed. 10 secondary)<br>Students: O. 49<br>(19 elem. 20 intermed. 10 secondary) | Environmental checklist | 1969<br>Single investigation | Doctoral student (Univ. Tennes |
| McRAE (BRITISH COLUMBIA) | Schools: O. 1<br>T. 1<br>Grades: Beginning of secondary<br>Students: O. 34<br>T. 34 | Standardized test<br>Gates McGinitie Reading Test | 1969-70<br>(two tests one year apart) | Vancouv School Board |
| METRO TORONTO SCHOOL BOARD-SEF (ONTARIO) | Schools: O. 12<br>T. 4<br>Grades: K-6<br>Teachers: O. 266<br>T. 101<br>Students: O. 773<br>T. 305<br>Parents: O. 224<br>T. 72<br>Neighbors: O. 210<br>T. 71 | Questionnaires,<br>Observations, One week in 12 sch. (N=6573)<br>Interviews with principals | 1971<br>First year investigation | SEF academ staff univer consul |
| MEYER (CALIF.) | Schools: O. 9<br>T. 8<br>Grades: Elementary<br>Teachers: O. 110<br>T. 120 | Questionnaires | 1970<br>continuing? | USOE Pr Stanfo Univer School Educat |
| MYERS (BRITISH COLUMBIA) | Grades: 3-7<br>Students: O. 62<br>T.271 | Questionnaires - Ideal Teacher checklist | 1971 | Prince George School Distric |



O.= Open plan school T. = Traditional plan school

| STUDY | SAMPLE | METHODOLOGY | DATE | STUDY DONE BY |
|---|---|---|---|---|
| OLDRIDGE (BRITISH COLUMBIA) | Schools: O. 1<br>Grades: K-8<br>Teachers: O. 9<br>Students: O. 132<br>Parents: 85% | Questionnaires<br>Observation | May, 1969, 3 days | Local school and two outside experts |
| PRITCHARD (BRITISH COLUMBIA) | Students: O. 109 | Mailed questionnaires | 1970-71, followup of 1969 study | Research dept. Vancouver School Board |
| WILSON (ONTARIO) | Schools: O. 1<br>Open style: 1<br>T. 1<br>Grades: 5-6<br>Students: O. 58<br>Open style: 46<br>T. 59 | Questionnaires<br>1. Semantic Differential Scale on attitudes<br>2. Torrance Minnesota Tests of Creativity<br>3. Specific Curiosity<br>4. Reactive Curiosity | 1969<br>Single investigation | Toronto Board of Education & OISE |
| YORK COUNTY (ONTARIO)<br>(see also Burnham) | Schools: O. 2<br>T. 9<br>Students: O. 89<br>T.425<br>Grades: 1 | Achievement tests<br>1. Canadian Cognitive Abilities Test<br>2. Metropolitan Achievement Test | 1971<br>Part of ongoing | York County Board of Ed. Research Department |
| YORK COUNTY Thornlea Secondary School (ONTARIO) | Schools: O. 1<br>Grades: 9-13<br>Students: O. 635<br>Teachers: O. 36 | Questionnaires<br>(Semantic & Behavioral Differential instruments)<br>Interviews<br>Student diaries | 1968-71<br>Ongoing | York County Board of Ed. Research Department and staff of secondary school |

O. = Open plan school  T. = Traditional plan school

# APPENDIX V

## BIBLIOGRAPHY OF BIBLIOGRAPHIES AND DIRECTORIES ON OPEN SPACE SCHOOLS

(Not restricted to research material: includes theoretical, descriptive and background material.)

OISE Dept. of Educational Administration, comp. Directory: Open Plan Schools in Ontario, Toronto, 1971.

Lists approximately 360 open plan schools, proposed open plan schools, partial open plan or open additions to schools in Ontario. Arranged alphabetically by school boards. Principals' names are given.

Sixteen secondary schools are listed.

OISE Library. Reference and Information Services. Nongrading, Toronto, 1970. 32 p. (Current bibliography No. 1, revised.)

Representative selection of recent material from 1964-1970. Included are books, journal articles, research reports, dissertations and audio-visual items from Canadian and American sources.

OISE Library. Reference and Information Services. Open Plan, Toronto, 1970. 22p. (Current bibliography, No. 2)

Cites books, journal articles, research reports, dissertations and audio-visual items from Canadian and American sources. Includes material on "open education" but excludes most material on team teaching, individualized instruction, and library resource centres.

Section I - Teaching in an open school
Section II - Facilities

Research and Information Services for Education. "RISE Bibliographies on "The Open Space Concept," Conshohocken, P.A., 1971.

A sampling of current literature. Long section on Flexible Scheduling, and four items on open space programming.

Toronto Board of Education. Education Centre Library. "Open Plan Schools." rev., March 5, 1970, with additions to January 28, 1971 (ECL biblio. No. 68-77).

Bibliography of books, reports and articles available in ECL. A. open plan schools; B. Team teaching in open plan schools; C. Specific examples of open plan schools.

York County. Board of Education. Research Office. Division of Planning and Development. "Open Education: A Selected Bibliography," Aurora, 1970. 4p.

An alphabetical listing of American and Canadian material up to October 1970, much of which is available at York County Board offices. Largely superseded by more comprehensive OISE bibliography.

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